

# FOOD

*from Poland*

view of Exports of Agricultural Products and Foodstuffs

No 1(51)

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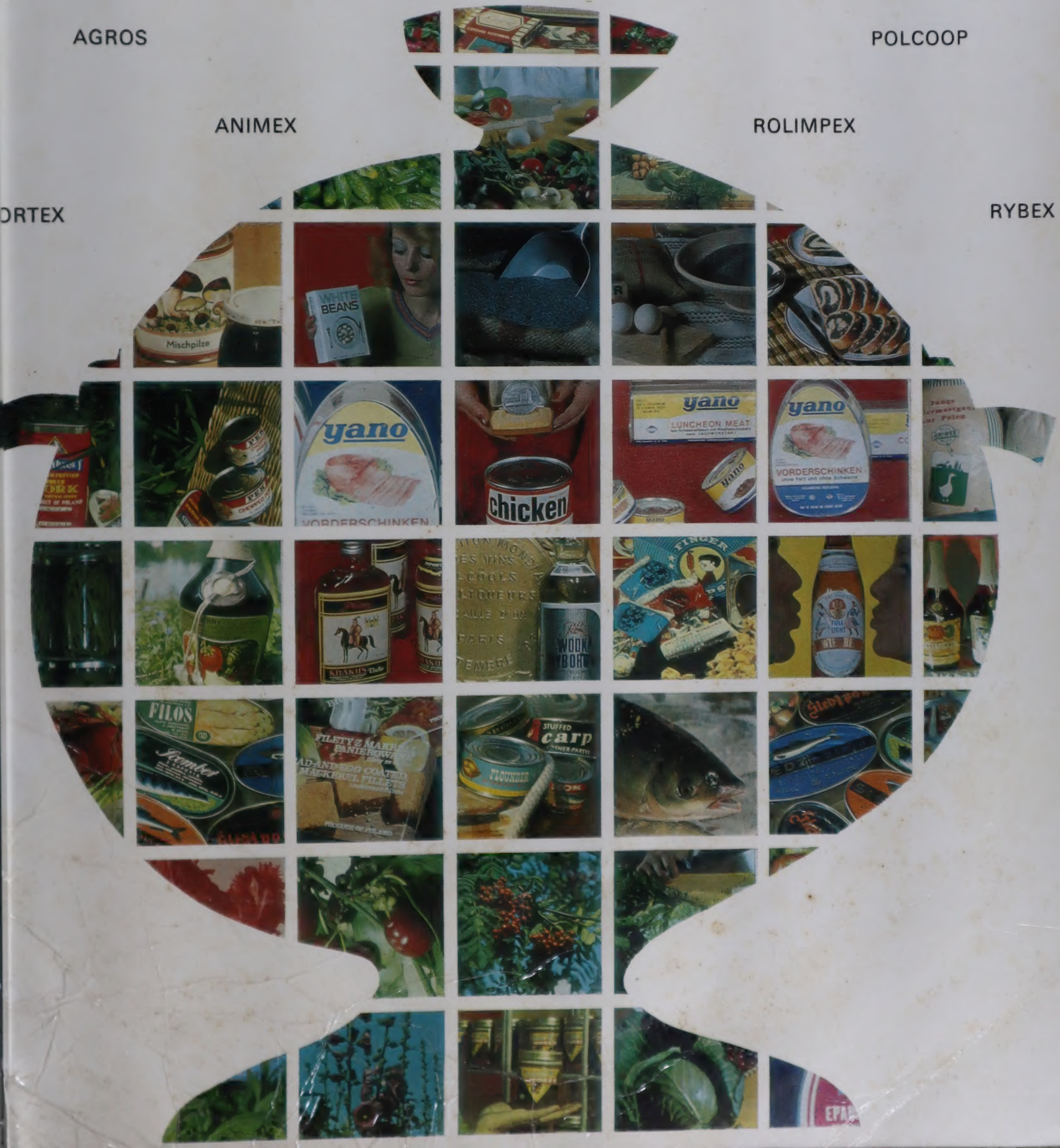
POLCOOP

ANIMEX

ROLIMPEX

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in the Ministry

# POLISH KITCHEN

1973—1975



The basic document for the social and economic development of our country in the years 1971–1975, i.e., the present 5-year plan, has defined the tasks of the food industry within the following synthetic indices: an increase of overall production by 30.8 per cent, an increase of market supplies by 36.8 per cent, and an increase of exports by 31.2 per cent.

The implementation of this programme will require a suitable technical and material base; this has been secured in the plan by an envisaged increase of the total agricultural production by 19–21 per cent, of which the vegetable production will increase by some 17–20 per cent, and animal production by 22–23 per cent. The increase of production capacity, modernization of production and increased degree of processing has been secured by increased investment outlays, higher by 52.6 per cent in comparison with the period 1966–1970.

The direction of activity of the food industry outlined in the 5-year plan for the years 1971–1975 has assumed a marked improvement in the structure of consumption: primarily a further increase in consumption of animal proteins (24.1 %) and a simultaneous reduction of consumption of carbohydrate foods, mainly of potatoes and processed grain foodstuffs.

The results of the first two years of this plan — 1971 and 1972 — show that these tasks have been considerably exceeded. The dynamic development of agricultural production and of the food industry production has been much higher than planned. In effect it was possible to supply the market with additional food products and to increase the foreign trade turnover in this group of products. It should be emphasized that the considerable export growth of food and agricultural products has been attained, among other things, by improving the assortment range and by directing for export products of better quality. New factors appeared, determining the dynamic development of the food industry in the years 1973–1975, both within the scope of the existing and planned raw materials base and of the necessity to meet the growing demand of the market.

A problem of essential importance for the implementation of this new programme will consist in preparing the food industry for the acceptance of increased quantities of raw materials, and in increasing its processing and transport capacity, and in meeting its requirements for packing materials.

These problems have already been taken care of in the supplementary Acts passed by the Council of Ministers.

The above mentioned legal acts define the new tasks and allocate means necessary to maintain in the years 1973–1975 the present and the expected rate of growth of agriculture and of the foodstuffs industry, higher than that envisaged by the 5-year plan.

The investments programme has been considerably increased, exceeding the investment outlays of the food industry during the last few years before 1972. This will enable us to increase production capacity and to improve the social conditions of workers employed in the food industry.

The main directions of investment outlays will cover, in the years 1973–1975, primarily the meat industry, the dairy industry, the egg and poultry industry, the sugar industry, the brewing industry, and the refrigerating industry. The increased investments programme will also embrace the remaining industrial unions of our ministry. Investments in the meat industry will concentrate mainly on the construction of new works, which will be located in the central and north-eastern part of our country, i.e., in regions representing a good raw materials base.

New elevators will be built in the flour-milling industry, new big mills will increase the milling capacity.

A new sugar factory will be built for the sugar industry. Its location, at Łapy, will enable us to utilize to a higher degree the raw ma-



terials of that region. In addition, a number of other sugar factories will be modernized and developed.

The investment outlays in the poultry industry are designated for the construction of a number of poultry slaughter houses. The share of vertical integration will considerably increase, therefore, in this industry. New breweries will be built for the brewing industry at Sierpc, Warka and Leżajsk. The construction of new breweries and modernization of the existing ones, planned for the years 1971–1975, will increase the production capacity of the brewing industry by some 5 million hectolitres of beer a year.

The increased investment outlays on the purchase of machines and equipment will permit — in addition to an overall increase of production of the food industry — to verify the assumptions within the scope of development of refined production, which will be better adapted for direct consumption.

The increased rate of investment activity will, in addition to such direct advantages as increasing the flexibility of production earmarked for the home market and reducing the costs of production, which is due to, among other things, shorter distances from the raw materials base or the possibility of quicker processing of seasonal raw materials, considerably contribute to further activation of the foreign trade turnover in food and agricultural products. This will establish a wider scope for our national economy to participate in the international division of work.

The activity of foreign trade in the field of food and agricultural products will enable us to draw advantages not only from the processing of raw materials by the food industry, but also those lying in the agricultural production.

In addition, the export of food and agricultural products will have an influence on the further increase of production, both in agriculture and in the food industry.

The advantageous conditions for an exchange of food and agricultural products will continue to exist, according to FAO experts, particularly within the scope of products requiring higher outlays of labour, with higher social cost of production.

It is envisaged that the present shortage of food and agricultural products on the world markets will become more acute. Poland is interested in the export and will strive to fill this gap, within the scope of her possibilities. This will permit to improve further the effectiveness of our foreign trade.

It is estimated that advantageous conditions will continue to exist in the years 1973–1975 for the export of products of animal origin — ham, beef, cattle, horses and horse meat, and in the group of products of vegetable origin — fruit, fresh vegetables, fruit and vegetable preserves, frozen fruit and vegetables, seeds, sugar, tobacco and processed potato products.

The highest rate of development of this export is expected to be reached in the years 1973–1975. It is planned that the increase of exports over and above the assumptions of the 5-year plan will amount, in this group of products, to some 26 per cent, of which to countries of western Europe — 28.6 per cent. A simultaneous increase of imports is also envisaged. Preliminary estimates show that the production of more important agricultural products will reach the following level in 1975: grain — about 21 million tons, sugar beet — 16 million tons, potatoes — 53 million tons, fruit and vegetables — 6.2 million tons, live cattle in terms of meat — 2.9 million tons, milk — 16.5 milliard litres, shell eggs — 7.8 milliard pieces.

After taking into consideration the results of the foreign trade turnover in food and agricultural products, the above level of production will assure in 1975 a further improvement of the structure of consumption, in comparison with the assumptions of the 5-year plan.



# Foreign specialists

*In order better to know the tastes and wishes of customers of the Polish agricultural-and-food industry products, the Editor's Office of our periodical asks the contractors to kindly express their objective opinions on the subject of products of vegetal and animal origin, purchased in Poland, on the subject of co-operation in the production of agricultural-and-food articles and of bilateral trade exchange.*

*We shall publish these statements in our periodical in the regular column under the caption OPINIONS.*

*In the issue we are now handing over to our Dear Readers we publish the two next statements of our trade partners.*



*Mr. Horst Geicke  
Hamburg*

## **How does the consumer in your country receive and assess Polish food products?**

Polish food products are generally highly renowned both in the trade circles and among the buyers of the Federal Republic of Germany and West Berlin. They are recognized as being of high

quality, selected and yet not falsified products.

## **As an expert in this branch, what can you say about the goods delivered to the market of your country?**

Your question refers especially to products which I, being the sole representative of ANIMEX and POLCOOP, handle on this market, such as: slaughter poultry — mainly ducks, geese and canned chickens; game — deers, roe-deers, hares, wild boars, wild fowl, canned game products and rabbits. The highest quality of these products is acknowledged by all the purchasing links i.e. the importer, wholesaler and retailer, as well as the consumer. This is why we obtain good prices for these products, higher, as a rule, than those obtained by our competitors.

## **What prospects of development of exports of food articles from Poland do you see — are there any possibilities of increasing these exports?**

I can, naturally, speak only of the products which I handle; and here the prospects for the next years look favourable, that is if, of course, on the part of Bonn or Brussels no administrative measures will be taken to hamper imports. According to sales so far, POLCOOP will deliver this year around 3,500 tons of domestic rabbits, representing a 15 per cent rise in comparison to last year.

ANIMEX can also boast of a similar increase of sales. It will supply 15,000 tons of poultry and poultry products, as well as, 1,500 tons of game and canned game.

I am sure that also in the forthcoming years, we will succeed in maintaining a similar rate of turnover growth.

## **What is your assessment of the advertising of Polish food products on your market. Do you see any need for boosting advertising — in what forms and scope?**

Both foreign trade enterprises i.e. ANIMEX and POLCOOP for many years have already advertised on this market. Use has been made primarily of posters, while advertising in the specialized press, sale promotion articles for retailers, and participation in food fairs have given good results.

Of course, there can never be too much of advertising, and, it would be good to allot for each year increased funds for this purpose.



# about Polish foodstuffs



*Dr. Otto Cullman  
Frankfurt am Main*

**How does the consumer in your country receive and assess Polish food products?**

Polish preserves are extremely highly rated in the Federal Republic of Germany.

This is due to their permanent excellent quality. Furthermore, Polish preserves are rich in aroma and they are skillfully made by export specialists.

The German consumer knows that Polish preserves are currently inspected by the Quality Inspection Office, which ensures the maintenance of a high quality standard. The preserves

never disappoint the German consumer.

**As an expert in this branch, what can you say about the goods delivered to the market of your country?**

A considerable part of AGROS exports consists of deep frozen forest and garden fruits: bilberries, strawberries, currants and raspberries.

These products belong to the best of their kind in the world.

This is so because the unique growth conditions permit a particularly strong aroma and acid content in the fruits. These properties are well obtained by the skillful techniques applied by expert food specialists. The end result is a product of the highest quality. Especially noteworthy is the careful selection of individual fruit classes, whereby deep frozen bilberries may again be mentioned.

**Are there any difficulties in the sale of Polish food products in your country or on the contrary are there no difficulties? If there are difficulties, of what kind are they and why? If there**

**are no difficulties — why is that so?**

All Polish products find ready buyers in the Federal Republic of Germany. The only shortcoming often consists in packing. For instance, the 0.9-litre jars are too big for the German buyer. He would prefer smaller containers. This ought to be taken into account by the Polish industry. Difficulties, however, consist in the import restriction, as the Federal Republic of Germany, a member of the Common Market, is allowed to import only limited quantities of products from third countries.

**What prospects of exports of food articles from Poland do you see — are there any possibilities of increasing these exports?**

In the case of products which are not subject to import restrictions, such as: pulps, juices, concentrates and deep-frozen fruits the prospects for a considerable rise of turnovers in the next years are in my opinion very good, provided, however, that a realistic price policy will be maintained. In the case of preserves the only

difficulty will be the already mentioned restrictions in the importation of these goods to the Federal Republic of Germany.

In my opinion, Polish producers should be allotted larger areas for growing forest and garden fruits. Exports should also be intensified by attracting more collectors of bilberries, mushrooms, raspberries and so on, whereby, higher collecting rates may prove the proper answer to this problem. It must, namely, be borne in mind that an estimated 20 per cent of fruit is left uncollected which deprives Poland of quite substantial currency incomes.

**Do you, in your own capacity, organize any forms of advertisement of food articles from Poland?**

We have often arranged tasting parties connected with Polish trade events or in large German stores which proved to be a great success. Especially for WÓDKA LUK-SUSOWA imported by us, we have organized in more than 50 outlets (department stores, chain stores, self-service shops) free retail and direct sales.

In a short time we had great successes.



From September 25 to 30, 1972, talks were held at the relevant Symposium of Agents and Importers of WÓDKA WYBOROWA in Warszawa. These talks, organized by AGROS Foreign Trade Enterprise in co-operation with the Union of the Spirits Industry, lasted a few hours and proved useful.

**Talks  
about  
Wódka Wyborowa  
at a  
Round  
Table**





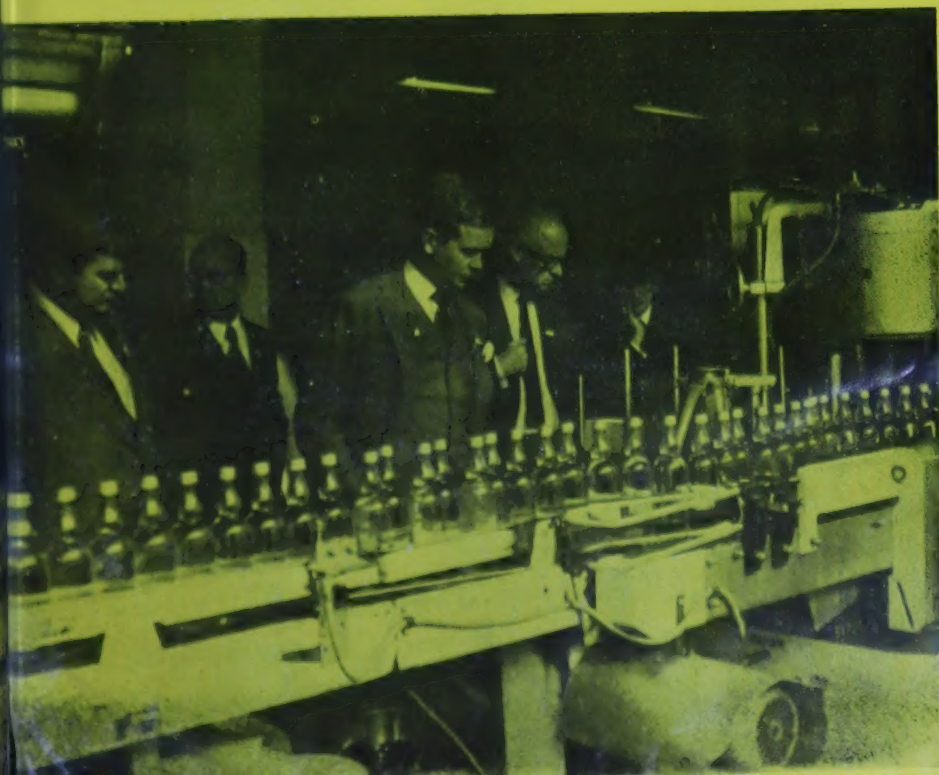
The Symposium's opening speech was delivered by Mr. B. Goroński, Director General of AGROS, who in warm terms welcomed the participants and invited guests.

Next to speak were Mr. Cz. Gaj, General Manager of the Union of the Spirits Industry and Mr. Piecha, Manager of the Alcoholic Beverages Export Office. The discussions embraced a rather rich and interesting theme. Such problems as effective sales of WÓDKA WYBOROWA, sales promotion, organization of sale, etc. were raised, where the participants exchanged their opinions and shared experiences concerning these subjects.

On the way to Poznań, which was the next stage of the symposium, participants from Austria, Belgium, Canada, Denmark, Finland, France, the Federal Republic of Germany, Great Britain, Italy, Mexico, Norway, Spain, Sweden, Switzerland also from the Canary Islands, and the United States, relaxed for a short time at Żelazowa Wola, which is renowned as the birthplace of the great Polish composer, Fryderyk Chopin. Here in a beautiful park a piano recital was given. The guests admired the lovely park and saw souvenirs in Chopin's home.



On the following day the foreign guests visited the Distilleries of the Spirits Industry in Poznań. They could see on the spot the up-to-date equipment and technological process of WÓDKA WYBOROWA production; they could admire the ideal cleanness and proper sanitary conditions in the distilleries. In this plant discussions were continued — discussions concerning the means of advertizing Polish vodkas — vodkas renowned for their virtues of taste and which, according to connoisseurs, are unequalled in the world. After a busy day there was once more a period of rest — sightseeing in Poznań, the town of the International Fair, and next a visit to the Palace at Kórnik which is for Poznań as great an attraction as the Palace at Wilanów is for Warszawa. AGROS's guests visited Wilanów towards the end of their stay in Poland.



The few days spent in Warszawa, Jabłonna, Żelazowa Wola, Poznań and Kórnik, a glance at various places which the coach with the participants from the Symposium drove through, gave an idea of present-day Poland, of its monuments and rich historical traditions. These traditions concern not only architecture and art; they include also greatly a cherished knowledge of the production of excellent vodkas, among which WÓDKA WYBOROWA has won the greatest fame in nearly all the world's markets.

We hope that the four-day Symposium will be long remembered by its participants and that they have gained a favourable impression of our country and Polish hospitality.



Mr. Czesław Gaj, General Director of the Union of the Spirits Industry, delivered at a symposium devoted to the products of this branch the following speech:

**T**he economic organization which I have the honour to represent is the sole producer of Polish vodkas, known the world over for their excellent quality.

The Union of the Spirits Industry associates 17 enterprises embracing 56 distilleries, whose production programme covers vodkas, raw and rectified spirits, technical alcohols, dry ice and liquid CO<sub>2</sub>, lactic acid, pressed and dried bakery yeast and fodder yeast.

The annual production of vodkas amounts to 650 million 0.5 l bottles. I would like to emphasize that the production of vodkas, particularly of high-quality vodkas, must be based on centuries of technological traditions. Here I would like to draw attention to the fact that Polish traditions in the production of vodkas date back to the 15th century and that Polish vodkas have been known in almost all the countries in the world for a very long time. The oldest records proving the purely Polish origin of the word "vodka" come from the years 1405 and 1437. The word "vodka" is a diminutive of the word "woda", a literal translation of the latin term "aqua vitae" — which means "water of life".

Vodka was mass-produced in Poland already from the middle of the 16th century, mainly from rye.

The main centres of production were in those days Kraków, Poznań and Gdańsk. The municipal documents of Kraków contain information that vodka was distilled in that city even before the year 1550. We can state, therefore, basing



our information on original documents, that Polish vodkas, exported to all continents, can boast of five centuries of technological traditions. The production of high quality vodkas designated for export is concentrated today in Poznań, the city which became an important producer of vodkas already towards the end of the 16th century.

The Polish Liquors enjoyed a considerable recognition in many countries already at the beginning of the 17th century. It can be stated, therefore that you Gentlemen continue, as importers, the work of your predecessors who lived almost 400 years ago. In those far-off days Polish vodkas were exported to Germany, the Netherlands, England and Denmark, and later to Austria, Russia, Romania, Hungary and to overseas countries.



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lot more could be said about the long-standing traditions of Polish vodkas, traditions supported by documents. It should be stated, however, that quite apart from the deep respect for traditions as a great treasure of our professional knowledge, we are constantly enriching the achievements of our ancestors and improving from year to year our methods of production of vodkas. I can make this statement with full responsibility, as I have been working in the spirits industry for more than 32 years.

We — the old hands — have been assisted in our work already for many years by specialized scientific and research centres, such as the Institute of the Pharmaceutical Industry in Warsaw, the Institute of Technology of Fermentation and Microbiology at Łódź, higher agricultural institutes of learning and our own designing departments.

In our everyday work we integrate the activities of our scientific and research background with the practical experience which, in the case of many of our specialists, amounts to 45 and even more years spent at the production of vodkas. This close co-operation is strengthened by the organization of research laboratories and experimental stations at our larger enterprises.

Technological progress, which is the guarantee of further improvement of the quality of our vodkas, is the result of continuous modernization of laboratory apparatus for quality control of raw materials and products.

Scientists and practitioners are working continuously on the improvement of the process

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of maturing the rye spirits and fruit distillates, and of the rectification of spirits. We are introducing new technologies, among others, in the production of fruit infusions, in order to refine further our vodkas by natural means.

I want to stress particularly the word "natural", as the Polish spirits industry can boast that it is the only industry in the world which does not use any chemical additions, which have been legally prohibited in our country already for many years.

The Polish scientists do not try to improve nature as we do not use any artificial methods. On the other hand, we are continuously studying the natural processes in order to utilize them in the best way for the continuous improvement of our products.

The dynamic growth of exports to more than 60 countries on all continents, and the particularly high increase of export of the queen of the Polish vodkas — WÓDKA WYBOROWA — is the best proof of their quality.

We are proud of the fact that in the production of the most difficult brand — the ideally natural pure vodka — we have been for the past 50 years the leading producer in the world.

Finally, I would like to assure the esteemed importers of our products that we will not yield the palm of unrivalled quality, not only of our famous WÓDKA WYBOROWA, but also of our other excellent liquors, such as the BISON BRAND VODKA, CHERRY CORDIAL, STAR-KA, etc.



# WODKA WYBOROWA



DIRECT  
FROM  
POLAND





# Wódka Wyborowa at the dinner party

WÓDKA WYBOROWA is the only spirit that can be served at dinner parties with any food right throughout the meal, always well chilled.

WÓDKA WYBOROWA is perfect as an Aperitif with hors d'oeuvres or a cold fish course.

It has the freshness to whet your appetite, just enough verve to make your dinner lively and successful.

**Hors d'oeuvres fall in three categories:**

- vegetable varieties
- fish and meat varieties
- mixtures of fish and meat with vegetables.

**Try the best:**

Smoked salmon, smoked trout. Parma ham finely sliced with melon, pâté, artichoke hearts, salami sausage, pickled herrings, anchovies and hard boiled eggs, olives, sardines, onions and radishes, roll-mop herrings, tomato salad...

Drinks made with WÓDKA WYBOROWA are dry, delicate and well mannered. WÓDKA WYBOROWA—tastes so mellow and pleasant.

No other drink has such versatility and can be enjoyed in so many ways.

**You can serve it:**

- STRAIGHT
- in small glasses as an aperitif before dinner
- ON THE ROCKS

Over ice cubes in old fashioned glasses with any food throughout the meal.

In cocktails made according to appropriate recipes.



# Toruń — The town of honey-cakes

The history of Toruń, a town in the Province of Bydgoszcz, is inseparably linked with the great Polish astronomer Nicholas Copernicus. Of old Toruń have remained fragments of the Gothic city walls with gates and the famous Krzywa Wieża (Crooked Tower) as well as some more than beautiful Gothic, Renaissance and Baroque tenement-houses in the Old Town. In one of them — the one in which Copernicus was born — a museum dedicated to his life and work has been arranged. Here have been gathered documents, drawings, astronomical instruments connected with this prominent scientist. It is here, at Toruń, that this year will be held a world congress celebrating the 500th anniversary of the birth of Copernicus. In Poland we call this year "Copernicus Year".

In following the traces of this old town's history we come to the magnificent city museum which is located in the beautiful building of the town hall. Here we find a hall in which old models and recipes and moulds used for the baking of honey-cakes have been collected. The traditions of honey-cake production go back as far as the XIIth century. The oldest source materials concerning honey-cakes date back to the XIVth and XVth centuries.

Spices for them were imported from countries in the East, with which the townspeople of Toruń had permanent commercial contacts. Also export traditions are of long standing. Already in the XVIth century honey-cakes made by monks of a monastery at Toruń were shipped abroad. In the XIXth century Toruń confectioners had permanent agencies in Warszawa and Königsberg.

In 1763 Jan Weese set up a firm of confectioners which, a hundred years later, was transformed by his successors into a modern factory. Already at that time the firm's products were shipped to Near East and Oriental countries such as: Turkey, China and Japan. These old and good traditions are being worthily upheld today by the Fabryka Pierników KOPERNIK (KOPERNIK Honey-Cake Factory) at Toruń, which recently celebrated the jubilee of 200 years of its existence. Confectioneries with the KOPERNIK trade mark are renowned not only in Poland but also far beyond her frontiers. This is indicated by it only by the range of exports of the Factory's products. Here may be mentioned, among others, Great Britain, Sweden, Canada, the United States, Ireland, Cyprus, Libya which are some of the export directions of the excellent Toruń products. Thus it can be seen that they are appreciated under most varied latitudes, namely by consumers with greatly differing tastes. First should be mentioned here various kinds of honey-cakes, namely chocolate-coated Katarzynki (Catherines) and chocolate-coated hearts. To these may be added also gingerbreads — honey-cakes with a marked honey flavour with an addition of spices and nuts or raisins. Among Polish consumers various kinds of wafer products are very popular. They are interspersed with layers of fat and sugar cream with an addition of milk and, depending on the kind, with fruit extracts, dried fruit, cocoa or nut cream added.

A separate item are excellent and loved by children eastern sweets: desert blocks, cocoa blocks and honey-cake blocks. These are products made of fatty paste with crumbled chocolate, wafer, biscuit, honey-cake confectionary bakeries. Not only. They are of deli-

cious taste but also have high nutritive values. Though the latter are not yet exported, they are in great demand on the home market.

Separate mention deserve so-called historical honey-cakes. These are products made of honey-cake paste which is hand-made in original, old wooden or metal moulds. They were used ages ago by the contemporary honey-cake bakers. Their designs are varied: they are in the shape of mediaeval knights, carriages drawn by horses, spinners at spindles, the coat of arms of Toruń and the figure of Nicholas Copernicus with a symbolic globe in his hand. These moulds are of great historical value and, therefore, are stored in the Toruń Museum and are lent out from time to time for production purposes. Both the preparation (according to old recipes) of the paste to be used in them and the caking are by hand, the rest of the production is largely mechanized, but the specifics of the long-lasting production processes call for much experience and high skill. For example it may be said that after preparation in the bakery the paste is shelved in cool storage for from seven days to three months and only then leavening agents and such ingredients as cloves, cinnamon, coriander and other spices are added. The paste is then rolled and shaped.

Depending on the kind of paste it is baked either in a coal or gas oven. After baking, the cakes are automatically taken from the oven and packed.

Part of the production is coated with chocolate paste. That is so also in the case of wafers, which are, moreover, interspersed with sweetmeat layers of various flavour: fruit, vanilla, almond.

Oriental products such as: honey-cakes cut into small shapes, biscuits or wafers coated in moulds with chocolate and cocoa paste, are a separate production department. This is an assortment very much liked and popular with children in Poland.

Products of the KOPERNIK Honey-Cake Factory at Toruń are exported by AGROS National Foreign Trade Enterprise.







## Tradition

Traditions of brewing in the world are very old and go back to ancient times. Already in ancient Babylon and Egypt beer was a well-known beverage.

The way of this beverage to Europe, and therefore to Poland, was long and took several thousand years. The secrets of the art of brewing were brought by merchants and during wars and conquests.

Beer production in Poland, which had at first a "home-made" character and later features of handicraft art, started to have an industrial character during the first half of the XIXth century. It was in those days that new vast breweries, such as the Żywiec Brewery (1856) and the Okocim Brewery (1845) were built. Thus, they were built during the same period as today's famous Carlsberg Brewery.

## Development

The fact that already in the years 1890–1900 there were some 500 breweries in operation with a total annual production of six million hectolitres is proof of the constant and dynamic development of the brewing industry in Polish territories. Beer in those days was a popular beverage and was an everyday requirement of the consumer.

The XIXth century — the time when the basic elements of science were introduced into the brewing practice — opened a new era for breweries throughout the world, including Poland. Breweries accepted and propagated the latest methods of brewing beer based at first

on the Bavarian system and later on the Czech method.

During the past twenty-seven years beer production in Poland increased more than eightfold. In 1949 beer production amounted to 1,325,000 hectolitres, in 1962 it increased to 6,568,000 hectolitres and in 1971 it attained the 11,209,000 hectolitre-mark.

Production per capita increased from 4.71 litres in 1946 to 33.81 litres in 1971 placing Poland in the group of countries which has an average level of beer production per inhabitant. With the increase of production there has also occurred a continuous improvement in the quality of beer and of packings. Beer with a long shelf life and bottled beers have had an ever larger share of the production. The systematic

# Polish Beer Blends Tradition and Modernity

rise in the demand for beer and the necessity to satisfy it had brought about a thorough modernization of Polish breweries which, as a result, has given better production results.

## Export

From the very start of beer production in Poland we became its exporter. Already during the early years of the XXth century the excellent quality of Polish beer competed successfully with the renowned Pilsner and Munich beers. Polish breweries, and primarily the Żywiec Brewery, shipped beer to Austria, Germany and Moravia. The many awards won by Polish breweries in those days at industrial exhibitions in neighbouring countries are a proof of the high quality of their products.

In the fifties and sixties of our century beers exported from Poland were of the highest quality and with a long — three or six months — trade durability guarantee. In the years 1956–1957 Żywiec Brewery was the first to start export production of a Pilsner-type beer of 12.5° Balling and, in 1959, the brewery at Okocim also started such a production; while also in 1959 the brewery in Wrocław began export production of a dark beer of the Bavarian type of 18° Balling, and Żywiec Brewery began export production of a strong Porter beer of 22° Balling. The exports of Polish beers, at first modest, are now gradually winning ever wider markets and higher recognition on the part of contracting partners abroad. Among the biggest customers in the years 1957–1960 were such countries as: the Soviet Union, the United States, Hungary, Great Britain, the Federal Republic of Germany, Bulgaria, Roma-





nia, Spain, Belgium nad France. When in 1960 exports of Polish beers amounted to 31,400 hectolitres, in 1971 they attained 200,000 hectolitres of which almost 170,000 hectolitres were exported by AGROS Foreign Trade National Enterprise Exporters-Importers.

Today the most important customers of Polish beer include Hungary, Romania, Bulgaria, Yugoslavia, Austria, Italy, the United States, Great Britain, the Federal Republic of Germany and France.

Polish beer is known in more than thirty countries the world over. At present Poland's brewing industry holds a strong position on many foreign markets including the highly developed countries of Western Europe. This is worth emphasizing since these are markets with great brewing traditions and tremendous competition. The fact that Polish beers of the full light Pilsner-type of 12.5° Balling are able to enter highly competitive markets is the best publicity. The fact that since 1954 we have never received any complaint about our beer is another proof of their quality.

We may well claim that our Żywiec and Okocim beers do not play second fiddle to any foreign beers of world renown and that in the opinion of many experts they are even better. That is so because of the strict compliance, under the supervision of inspectors of the Polish Quality Inspection Office, with the provisions of the

technological process and the use of malt and hop of the highest quality.

In order to facilitate for our clients an increase in the sales of beer we started in 1968 shipments of beer in 6-bottle baskets and, from 1973, we will be able to deliver beer packed in thermo-shrank foil in sets of two or three bottles. This kind of packing is most useful in sales of the "carry-home trade" type.

We are at our client's disposal with an entire range of publicity materials such as: glasses, decorative ceramic tankards, napkins, bottle and tin-openers, ash-trays, stickers and posters. On special request we deliver also advertizing films. With the aim of increasing export possibilities, Poland's brewing industry is planning to widen its range of packings by the application of tins and thin-walled bottles.

Polish beers have won several valuable prizes at international brewing events, only to mention: **Żywiec Beer** — gold medal at the International Beer Contest in Brussels in 1967, gold medal at the World Beer Olympiad in Nürnberg in 1968

**Okocim Beer** — special prize at the World Beer Olympiad in Paris in 1964

It is expected that in the years to come there will be a further increase in exports to markets already won, and, that exports will begin to markets which hitherto have not been conquered.

Jerzy Pakulski

# Deep-frozen vegetables from Poland

Before speaking about our deep-frozen vegetables, we would like to remind our importers that the very beginning of our export of deep-frozen fruits had been started by AGROS in 1957. It was not easy to introduce our deep-frozen fruits in foreign markets and nobody need wonder why. To an exporter who appears for the first time in a given market, the attitude of all buyers is, at first, reserved and perhaps even a little distrustful. Not at once did Polish deep-frozen fruits find approval. Sometimes many attempts were made until we succeeded in inducing at least one important jam manufacturer in Western Europe of making a trial and buying one wagon of Polish deep-frozen strawberries. But we were sure that after one lot following orders would reach us regularly. And so it was indeed. Our export of deep-frozen fruits has been developing and extending step by step. Every year we are winning new customers in those countries where our deep-frozen products were not known before. Nowadays, Polish deep-frozen strawberries, bilberries, raspberries, and black and red currants are very well known in all European countries, as well as, in the U.S.A., Canada and Japan.







Deep-frozen fruits are produced in Poland by more than thirty enterprises situated in different parts of the country. Near to the fruit growing regions, almost without exception, are modern plants equipped with necessary machines and production facilities.

It was only a few years ago that AGROS started exporting deep-frozen vegetables. A certain delay in the development of this production was due, above all, to the fact that technical problems in the production of deep-frozen vegetables are much more difficult than in the production of deep-frozen fruits. Almost, every kind of fruit which is consumed when fresh, is also fit for freezing. However, as regards vegetables, a careful selection of a suitable botanical variety should be made first, for not every botanical variety (e.g. green peas) tasteful in the fresh state, gives good results after freezing. Always many botanical varieties are examined before a choice is made which would assure the best taste in the deep-frozen state. The technical side of this production is also much more complicated than that of deep-frozen fruits. Before freezing, the vegetables must be washed sometimes peeled, cut in a proper way, and blanched, i.e., precooked a short time in order to destroy active enzymes and microorganisms and to improve taste. It is not easy to establish the proper duration of blanching time. Too long a duration results in cooking vegetables to a pulp, whereas too short a duration of blanching does not warrant the destruction of enzymes and microorganisms in a sufficient way, preventing them from getting spoiled even at a low temperature. In order to overcome the mentioned technical difficulties, many experiments are sometimes required; and not always are the desired results obtained sooner than after a few years of testing.

At present, we are exporting in rather considerable quantities deep-frozen cut beans, Brussels sprouts, spinach, cucumbers in slices, carrots in dices, mixed vegetables, as well as, kale and broccoli. Our suppliers are continuously endeavouring to introduce new kinds of deep-frozen vegetables on our list of export articles. For some years now attempts have been made to produce deep-frozen cauliflowers of good quality, but, as yet, only in some plants are the results satisfactory. The export of deep-frozen broad beans, celery, leek, and kohlrabi is planned to be started soon. Irrespective of the new items in our export list, a considerable increase in the quantity of deep-frozen vegetables, produced both for home market and for export, will take place in the course of the next few years.

Our general principle is to produce every new kind of deep-frozen vegetables first for the home market. In every new production unexpected things are always likely to occur that represent serious obstacles in obtaining a good quality of the product in the initial period. Only when all quality problems are definitely solved and when we are absolutely sure that the quality of our products corresponds to the requirements of our customers abroad, can we offer our products to foreign markets.

In overcoming the mentioned technical difficulties, an important part is played by the Polish state

quality control board which is the Quality Inspection Office (Centralny Inspektorat Standaryzacji). The abbreviation C.I.S. is well known to our foreign customers who are aware of the fact that quality control in Poland is on a high level indeed. It should be added that C.I.S. does not limit its activity to the control of ready-made products destined for export, but, when necessary, specialists of C.I.S. are sent to production plants and there help with many technical matters connected with the quality of the export products.

Deep-frozen vegetables are packed in uniform cartons of 10 kilos net. Inside in the carton there is either one polyethylene bag of 10 kilos, or four bags 2.5 kilos each, or twenty little polyethylene bags 500 grams each. In ever greater demand now are polyethylene bags of 2.5 kilos net. Deep-frozen vegetables, as well as deep-frozen fruits, are forwarded in refrigerator wagons in which 2000 or 2500 kilos of dry ice are loaded. This way of transport gives fairly good results as the necessary low temperature is maintained even when the wagon is five to seven days under way. We also send our deep-frozen fruits and vegetables in refrigerated lorries at a fixed temperature  $-18^{\circ}\text{C}$  ( $0^{\circ}\text{F}$ ). In such a case, transport costs are naturally higher, but the risk of goods being defrosted does not exist at all.

Of great importance to our foreign customers is the fact that fertilizers and chemical insecticides and herbicides are used in Poland only to a limited extent. Therefore, our deep-frozen vegetables may be called more natural than those of other countries.

As we have already said at the beginning, time was necessary before our foreign customers had been convinced that Polish deep-frozen strawberries and other fruits exceed, as regards quality and taste, the same products from other countries. Similarly, a certain period will be needed until foreign customers will appreciate the taste value of our deep-frozen vegetables and will place their confidence in them.

**T**he virtues of taste and salubrity of this fish have been discovered somewhat too late as its stock is not as rich as it was still a few or a score of years ago.

Experts and connoisseurs are of the opinion that many factors, among the most important of which is the fishing time, are decisive as to the alimentary and taste values of the mackerel. There are fishing seasons when this fish can compete with the best. Fishermen know this very well and put this fact to proper advantage. Another factor, equally important, is taking into consideration the length of period separating the time of the catch from that of freezing. Even if the mackerel is caught at the best period and its freezing is delayed by one hour or if it is frozen at a wrong temperature, then the fish loses many of its values and much of its tastefulness. Therefore, in fishing mackerel fishermen must have a deep technological knowledge and must have at their disposal the proper equipment on board enabling them to fulfil the most demanding conditions.

The modern vessels of the Polish fishing fleet, catch mackerel in the North Sea, and on the fishing grounds of the Western Atlantic and off the coast of north-western Africa. It is here that the Colias mackerel, which is in such demand on all markets of the world, is caught. The fish after being caught is submitted on the spot to initial processing. After the catch the specially trained crew processes the fish. The fish are gutted, decapitated and arranged in blocks which are immediately frozen. With the aim of providing the consumer with a tasty and healthy mackerel, throughout the world the race is on to shorten the period between the catching of the fish and its freezing. In this Polish fishermen are assisted by machines and equipment and Polish vessels which are fitted out with the most up-to-date technical means. Poland is renowned, throughout the world, as a builder and exporter of fishing vessels.

Though the stock of mackerel today is not as large as it used to be, mackerel fishing calls for great human skill during fishing, as well as proper preparation for consumption.

This consumer article is prepared in the following forms:

- round mackerel — frozen in blocks
- gutted mackerel with head — frozen in blocks
- headed mackerel — frozen in blocks
- headed and gutted mackerel — frozen in blocks
- mackerel fillets — frozen in blocks
- mackerel fillets in portions and coated in bread-crumbs, packed in decorated cardboard boxes of 400 g.
- mackerel fillets — smoked when hot
- mackerel fillets — smoked when cold
- smoked mackerel — smoked when hot
- smoked mackerel — smoked when cold
- marinades
- mackerel preserves (in oil, in tomato sauce, with vegetables, in mayonnaise sauces, in natural sauce).

Mackerel prepared in such ways is in demand and highly valued. Housewives willingly buy mackerels and gourmets in many countries highly value them for their taste and alimentary virtues.

To justify the title of this article we offer a few recipes for dishes made with this tasty fish.



# Rybex



## *Mackerel a Tasty and Salubrious Fish*

### FILLETS OF MACKEREL WITH ONIONS

One kg of fillets, 1 kg of onions, 5 tablespoons of oil, 1 cup of broth from concentrate, 1 quarter-litre bottle of cream, 2 tablespoons of flour, 1/2 lemon and salt to taste.

Cut the onions into slices, put them into a pot, add oil, broth, salt. Stew on a slow fire taking care not to brown the onions.

Mix the cream with the lemon juice then add it to the pot with braised onions. Boil. Place the prepared fish portions in the sauce and stew for about 20 minutes. The ready dish sprinkled with chopped green parsley is served with rice or potatoes and a salad of the season.

### FILLETS OF MACKEREL À LA FISHERMEN

Mackerel fillets, onions, tomato concentrate, grain pepper, powdered cayenne pepper, parchment paper. Wash the defrosted fillets and salt them. Cover the salted fillets with sliced onions, add tomato concentrate, sprinkle with pepper and cayenne pepper. Arrange the fillets along the backbone line with the skin on the outside, wrap them in parchment paper and place in an oven for 30 minutes after which the mackerel is ready for consumption.

### GRILLED FILLETS OF MACKEREL

For four persons. 4 large mackerels, lemon juice or vinegar, salt to taste, 3 tablespoons of chopped dill, 1 tablespoon of chopped parsley, 1 egg, 3 tablespoons of milk, bread-crumbs for coating, oil for grilling.

Make fillets; sour and salt them. Mix egg with milk, add chopped seasoning and mix well into a thick sauce. First dip the fillets in the sauce, then cover with bread-crumbs and grill them immersed in oil.

### MACKEREL À LA HUNGARIAN GOULASH

One kg of mackerel or mackerel fillets, 4 onions, 2 tablespoons of fat, 2 tablespoons of flour, 3/4 cup of cream, salt to taste, powdered red pepper.

Wash the fish, gut it, make fillets, cut them into strips and brown slightly in fat. In the left over drippings brown slightly onions cut into cubes. Place the fish with the onions in a pot and sprinkle richly with powdered red pepper, salt, pour a glass of boiling water and stew under a cover on a slow fire for about 20 minutes. Thicken the sauce with flour mixed with a few spoons of water and boil. Add cream. Add seasoning. Lay the fish out on a hot plate, sprinkle with chopped green parsley. Serve with noodles or potatoes and a season vegetable-salad.

### MACKEREL IN CREAM

One kg of mackerel (or fillets of mackerel), 2 onions, fat, 1/2 cup of cream, salt to taste, pepper, 2 tablespoons of green parsley.

Wash, scale, cut off head and fins, gut and rinse mackerel (if round). Place the fish in a fire-proof dish smeared with fat and sprinkle with pepper. Rinse a peeled onion, cut it into small cubes and stew it slightly taking care not to brown. Cover the prepared fish with the onion and place in hot oven. When fish starts to brown, add salt and finish grilling. Before removal from the oven pour cream over the fish. Sprinkle with green parsley and serve with potatoes and season vegetables.



# 15

**Jerzy  
Ubysz  
Managing  
Director  
of  
HORTEX**



HORTEX — Enterprise for Foreign Trade of the Union of Horticultural Cooperatives was set up in 1958. Its basic activity is the export of fresh fruits and vegetables which are grown in Poland and of processed fruits and vegetables, namely semi-processed for further processing, as well as preserves for direct consumption.

Moreover, HORTEX exports mushrooms — champignons, bee honey and cut flowers. Since 1965 HORTEX also handles imports of fresh fruit and vegetables (mainly from Balcan countries) and makes purchases in North African countries.

In 1973 HORTEX will celebrate the 15th anniversary of its activities.

Fifteen years of existence is not so long a period of time for an enterprise operating on international markets. There are renowned firms which have been in the trade for a considerably longer time and have a rich past and much experience and in which commercial skill and experience are handed down from generation to generation. HORTEX nevertheless, during the past 15 years can show important achievements in exports and, since 1965, also in imports. Since its first days of activities the management of HORTEX has endeavoured to assemble within the enterprise highly skilled specialists with a good knowledge of fruit and vegetable production problems, of fruit and vegetable processing techno-

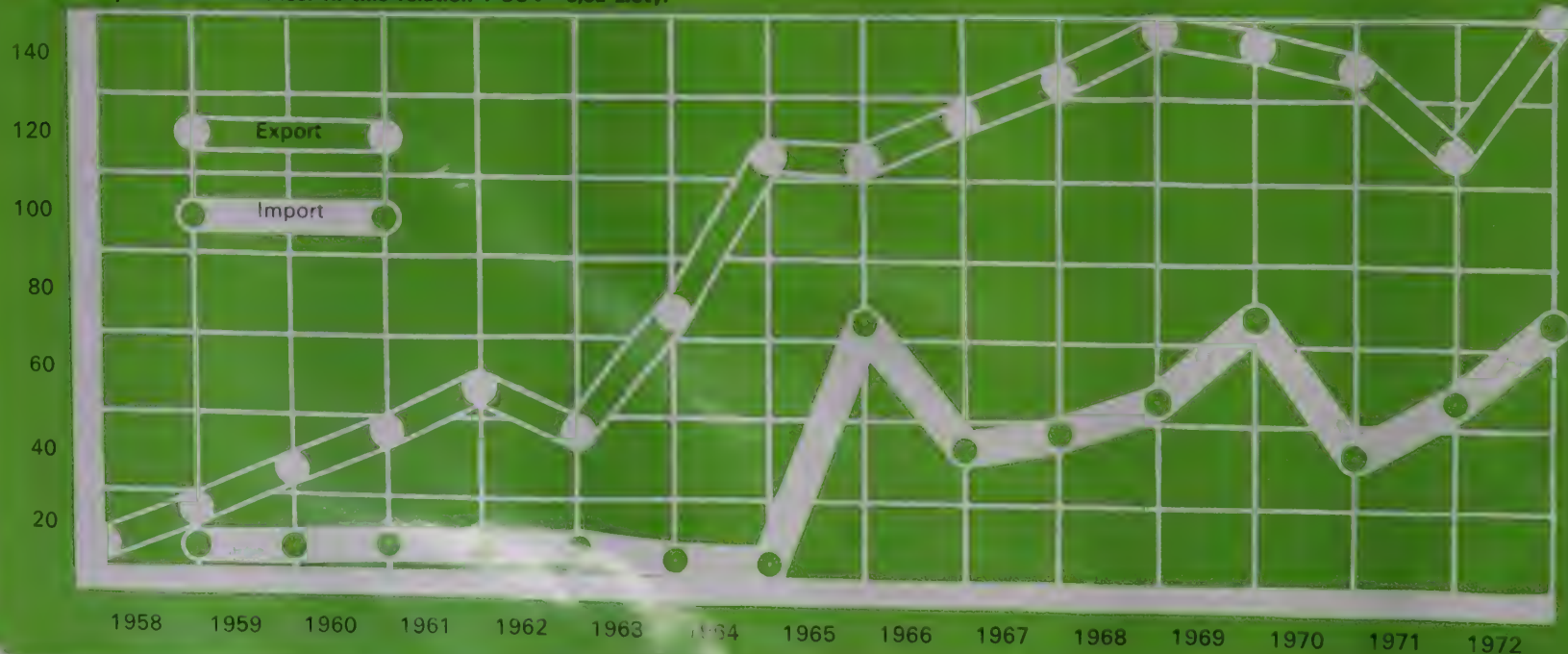
logies and with the knowledge of problems connected with international turnovers of fruit and vegetables and their preserves.

Today we can state that these efforts have given positive results. The HORTEX trade mark is known in 35 countries of Europe, North and South America, in Africa, Asia and Australia. During the past years occurred a dynamic rise in exports and imports of fruit, vegetables and of their preserves. HORTEX as the sole Polish foreign trade enterprise specializing in international turnovers of fruits, vegetables, as well as of fruit and vegetable preserves, has attained its results thanks to basing on a wide production background of the sector of the Union

of Horticultural Cooperatives which associates some 300 cooperatives and processing plants of which about 200 prepare commodities for export. Moreover, HORTEX is exporting frozen fruits and vegetables from six cold storage plants with freezing facilities, organized in a joint enterprise at Góra Kalwaria and from 30 state-owned plants supervised by the Union of Cold Storage Plants.

In 1968 HORTEX started to cooperate with Swedish firms and on the initiative of this enterprise a complete cold storage plant with freezing facilities was bought on credit which is being repaid with deep-frozen fruits and vegetables. This plant is located at Białystok and since four years it pro-

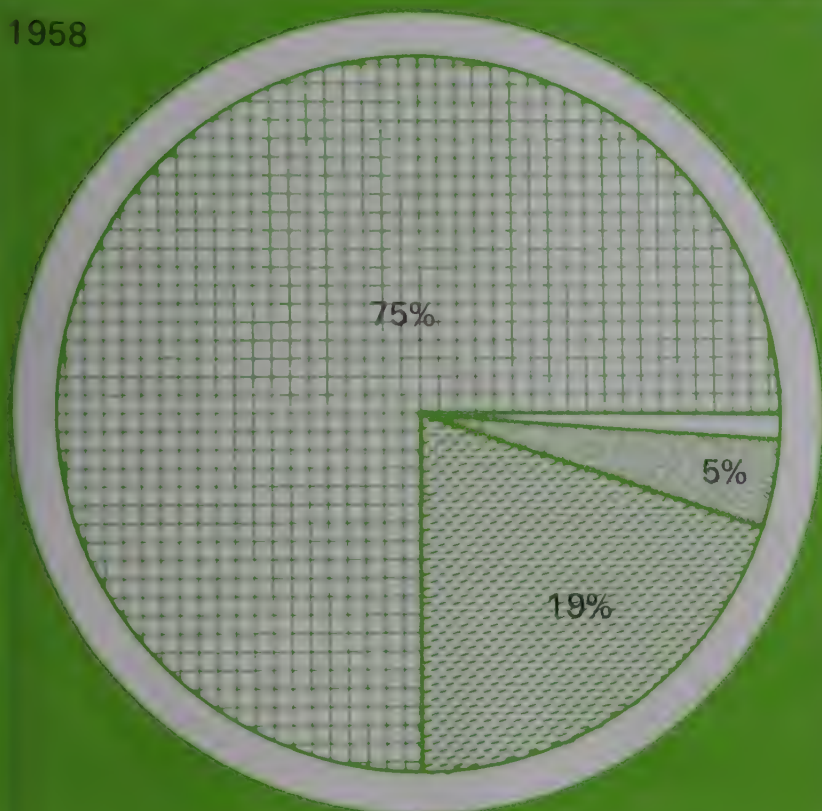
(Mln.) The value of exchange-zloty results from comparing the par of exchange of the zloty with the par or current rates of currencies of particular countries. In this relation 1 US \$ = 3,32 zloty.



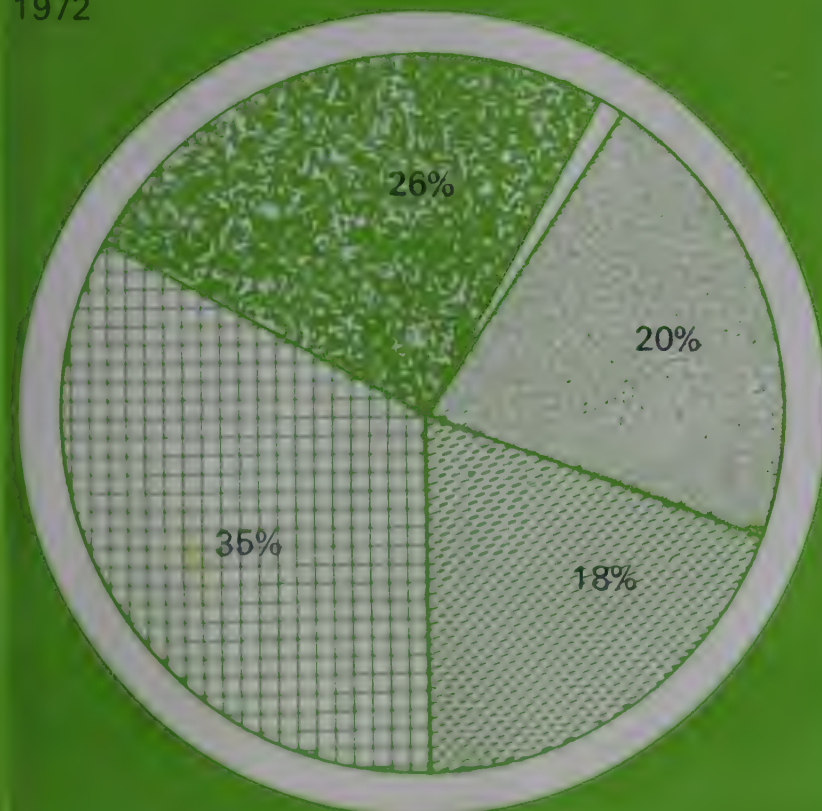


# of HORTEX activities

1958



1972



fresh fruits and vegetables

semi-processed fruits and vegetables

fruit and vegetable preserves

deep-frozen fruits and vegetables

other articles

duces high-quality deep-frozen fruits for the requirements of export and for the home market. Recently three further cold storage plants with freezing facilities have been bought. One of these, the construction of which has already started in the vicinity of Płońsk in Poland's main raspberry growing region, will be supervised by the Union of Horticultural Cooperatives. The plant will start production in 1973, the jubilee year.

The wide cooperation with scientific institutes directed by the eminent specialists: Professor Dr. S.A. Pieniążek, Director of the Institute of Fruit-Growing and Professor Dr. E. Chroboczek, Director of the Institute of Vegetable-Growing, the introduction into cultivation of new varieties of fruit and vegetables, new production methods, new processing technologies adapted to the climatic and soil conditions of Poland guarantee a further development of production and exports adapted to the needs of consumers at home and abroad (see the diagram to the left).

HORTEX today exports considerable quantities of deep-frozen fruits and vegetables. This enterprise put these articles on the export list in 1958. High-quality frozen strawberries, black and red currants, morello cherries, spinach, kale, beans, cauliflowers, Brussels sprouts and other deep-frozen fruits and vegetables are renowned in many countries.

The export of fruit and vegetable preserves has increased considerably. Fruits in syrup, pasteurized strawberries and bilberries find earnest buyers in Great Britain, the Federal Republic of Germany and in other European and overseas countries. Pickled dill cucumbers, baby beetroots in vinegar and pickled baby onions are considered by customers of Sainsbury super markets in Great Britain as products of the highest quality.

Among fresh fruits and vegetables the exports of which have decreased in comparison with 1958, onions, champignons, apples, spring and medium-early potatoes, cauliflowers, cucumbers, radishes are commodities highly valued by the customers in Scandinavian countries, Great Britain, the Federal Republic of Germany, France, Czechoslovakia, the German Democratic Republic and in the Soviet Union.

The quality of products exported by HORTEX is supervised by the above-mentioned institutes, the co-operatives' and processing plants' internal control organs and by the Quality Inspection Office. In the organization of sales and transportation HORTEX

adapts itself to the requirements customs and habits existing on the importers' markets, applies up-to-date commercial and transport methods, delivers goods directly to processing plants, to retail trade enterprises such as super markets, and avails itself also of the intermediary of specialized agencies in the fruit and vegetable line of business, organizes joint mixed capital companies and makes use of services of existing companies, HORTEX has initiated and uses modern means of transport such as container transport of frozen fruits and vegetables to the United States and to Great Britain.

The organization of sales and the technique of deliveries are HORTEX' main concerns in rendering good service to clients.

The imports of fruits and vegetables are destined for the home market and industry. The concentration in one commercial organization such as HORTEX of export and import problems based on the production background of the Union of Horticultural Cooperatives permits a quick making of competent decisions, increasing of imports in the case of smaller home crops or placing of fruit and vegetable surpluses occurring on the market.

HORTEX participates in international fairs and exhibitions organized by the Polish Chamber of Foreign Trade or organizes its own specialistic exhibitions and fairs. HORTEX primarily takes part in the Poznań International Fair at which its exhibition is always very successful and visited by many customers and visitors.

HORTEX is also a member of INTERFLORA, the seat of which is in Zurich. INTERFLORA's branch in Poland, called HORTEXFLORA, renders services in the line of exchange and deliveries of flowers. The inhabitants of Poland receive thereby flowers from numerous Poles living abroad, from friends and relatives scattered all over the world. Similarly the inhabitants of our country express their sympathy and friendship by sending flowers through the intermediary of HORTEXFLORA to their friends and relatives abroad.

HORTEX is also a member of the National Preservers' Association in Chicago.

**On the occasion of the 15th anniversary of cooperation we express hereby to all our foreign customers, as well as to our home suppliers our best wishes of further good cooperation and increasing turnovers with our enterprise.**





**HORTEX**









# The raw material and processing base of goods export by

# HORTEX

During recent years in the majority of European and highly developed countries a marked rise in the consumption of fresh fruits and vegetables and fruit and vegetable preserves as well as a dynamic increase in the consumption of frozen fruits and vegetables have been noted. For freezing is today one of the most perfect methods of food preservation guaranteeing its retaining the least changed form.

This causes an increased demand for these articles and a rise in their turnovers in foreign trade. Thus the Polish economic authorities are considering also a further intensive development of horticultural production and processing.

When the requirements of the home market are satisfied, a part of the

products both fresh and preserved, is destined for sales on foreign markets. The main organization carrying out this task is the Union of Horticultural Cooperatives in Warszawa which associates more than 400,000 members.

The Union of Horticultural Cooperatives, through its centres in the country — horticultural co-operatives — is engaged in the organization of production in the country and in the supply of means of production as well as in the handling of goods bought from the producers.

The fresh fruits and vegetables bought are directed partly to the home market for supply of the population, partly for export and partly to the own industry.

A considerable part of the ready products of this industry — semi-finished and frozen products are destined for export.

The export activities of the Union of Horticultural Co-operatives are handled by HORTEX Foreign Trade Enterprise Warecka 11a, 00-950 Warszawa.

With the aim of acquainting readers more closely with our activities we will present the most important problems connected with the raw material base of the main articles exported by HORTEX.

Fruit and vegetable production is concentrated mainly in central and southern regions of Poland, in the provinces of Warsaw, Poznań, Byd-



Szczecin, Łódź, Kielce, Lublin and Kraków. Total fruit and vegetable crops in 1970 were as follows:

Variety	Crops 1970	Index 1970/65
<b>Fruits from orchards</b>	tons	%
Total	1008.6	120
which:		
apples	691.1	139
pears	117.6	94
plums	134.0	104
morello cherries	30.1	59
cherries	29.2	86
other fruits	6.7	108
<b>Berry fruits</b>		
Total	180.3	92
which:		
strawberries	93.8	69
raspberries	11.0	162
currants	51.9	138
gooseberries	23.6	134
<b>Field culture vegetables</b>		
Total	4180.2	113
which:		
cabbage	1652.3	94
onions	364.7	113
carrots	490.3	111
beetroots	440.2	133
cucumbers	439.8	220
tomatoes	354.5	192
other vegetables	434.4	99

During the past five years the following tendencies appeared:

— In orchard fruit production there occurred a marked reduction of the periodicity of crops. The reduction of the periodicity of crops and an increase of their volume was vitally influenced by the raising of the agrotechnical standard and of the protection of orchards, mainly in farms specializing in horticultural production. The share of winter apples of the commercial type such as Jonathan, Mac Intosh, Red Delicious rose markedly. The share of new, intensively run, orchards increased considerably.

— On the other hand some difficulties are being encountered in the keeping at the hitherto level of the production of morello cherries and cherries. Therefore efforts are continuing to preserve the production of the Polish variety of morello cherries Sokówka, which is particularly valued on the market of the Federal Republic of Germany, as well as new, more productive varieties for the needs of processing and freezing industries are being sought. Attempts are made at moving cherry cultivation to regions with more appropriate soil and climatic conditions.

— The variety structure of fruit cultivated has improved, primarily due to the increased share of berry fruits — mainly black and red currants, raspberries. Black and red currants are mainly cultivated for industrial purposes. Both these fruits are subject to varying market conditions. In the years 1967/8 black currants attained a very high price on European markets.

In the years that followed the interest for this article decreased and

prices dropped. The past two years brought again a rise in prices. The quality of Polish currants is very high. Their production systematically increases. Raspberries are an important assortment which rouses a lively interest of importers. The characteristic aroma and flavour of Polish raspberries compete with those of Hungarian and Yugoslav raspberries. Mainly Promise and Seedling raspberries are cultivated. Nevertheless efforts are being made to obtain even more handsome fruits. New raw material bases are being developed for new freezing and production plants under construction. To improve the state of health of plantation, devirusized materials are being introduced. Jointly with the Institute of Fruit Growing at Skierniewice experiments are being carried out with new varieties of raspberries, which in the future will be put to cultivation.

— In the production of strawberries, first a rapid rise was noted up to the year 1965 and next, due to unfavourable natural conditions, there occurred a fall of production. In 1968 started a recuperation of lost areas and a stabilization of production. There occurred an improvement in the state of health of plantations as a result of the introduction into cultivation of devirusized seedlings. Due to their taste, aroma and usability for processing and consumption, fresh Polish strawberries are very highly valued on foreign markets. The basic variety in cultivation is the **Favorytka** variety. The remaining two varieties — **Africa** and **Ananas** have but a small share of the total production.

Next to these varieties we are introducing into cultivation varieties with a lighter-coloured flesh such as Corella and Redgountlet.

Moreover, experiments are being carried on with many new American and European varieties.

Experiments in the line of berry fruits are constantly supervised by the Institute of Fruit Growing at Skierniewice. We also are in contact with the Cornell University, New York, USA.

Strawberries, in the form of fresh, frozen and preserved fruits, are one of the basic assortments on HORT-TEX export list. Poland holds a leading place in world strawberry production.

— In vegetable production has occurred a marked rapprochement of the total production to the demands of the market, industry and export. Favourable changes are expressed by a reduction of the share

of cabbages in favour of other vegetables such as tomatoes, cucumbers and other tasty vegetables. Cultivation of such varieties as: beans, peas, cauliflowers, Brussels sprouts, asparagus, scorzonera, horse-raddish, kales both for processing and freezing as well as for sale fresh is developing. New production bases of these vegetables are being set up. The production of onions (Wolska variety), which are renowned for their high quality on foreign markets, as well as of other root vegetables is beginning to be stabilized. An exception are carrots, the cultivation of which is showing strong developmental tendencies. Work is being done on new varieties of carrots for consumption, juices and freezing.

In specialized production bases a constant improvement of the quality of the vegetables cultivated and rise in the crop yields per hectare is noted. This fact will permit in the future to reduce markedly the area under vegetable cultivation and to put it into other use for production. At the same time during the past five years, the network of socialized fruit and vegetable purchase points has developed considerably. The share of the Union of Horticultural Co-operatives in the total purchase amounts to about 70 per cent of which articles delivered under the contract-purchase scheme form the majority.

Contractation-purchase of fruits and vegetables is one of the main factors of the planned influence upon the production of small farms which deliver their produce to horticultural cooperatives. This influence aims at a more appropriate distribution of production, at the adaptation of composition of the assortment to the requirements of the home market, exports and of the industry, at the concentration of production and the specialization of farms in cultivation and at an improvement of quality.

During the past five years a dynamic rise in the consumption of vegetables and berry fruits by freezing and processing industries has been noted. The Co-operative horticultural sector has some 180 fruit and vegetable processing plants. They are localized throughout the country near raw material bases. These plants produce finished products and semi-finished articles. Among processed fruits the main items are fruits in syrup and pasteurized fruit. The basic raw materials are strawberries, raspberries, black and red currants, morello cherries, plums and blueberries. Among vegetable preserves a primary role is played by onions, baby beetroots and pickled dill cucumbers, pickled dill and





▲ Model of the freezing plant at Płońsk

View of a straw mulched strawberry plantation. The straw protects the fruit against sand





nions, preserved beans, vegetable salads (mixed), sauerkraut and pasteurized cabbage, cucumber salad and sliced cucumbers. These articles are known on European and overseas markets under the KRAKUS and HORTEX brands. The rate of increase of preserved vegetables is markedly higher than that of fruit preserves. Clear developmental trends are shown by vegetable preserves especially by baby beetroots, onions and pickled dill cucumbers and, of fruit preserves, by compotes and pasteurized fruit. About 50 per cent of the total production is earmarked for export.

Due to their high quality articles exported by HORTEX are greatly valued by our clients.

In the group of semi-processed articles the basic assortments are fruit concentrates, pasteurized raw juices, pulps, chemically preserved raw juices and sieved fruits. The main raw materials are strawberries, raspberries, black and red currants, morello cherries. In many countries the industry's demand for chemically preserved semi-processed articles is decreasing concurrently with the modernization of the food industry in favour of deliveries of frozen fruits.

In connection with this also in Poland the production of pulps and raw juices is being limited and the fruit and vegetable freezing industry is being developed. In Poland the production and export of frozen fruits were started in 1958. That year HORTEX exported the first lot (23 tons) of frozen strawberries — HORTEX exports also frozen articles processed in state-owned cold storage plants with freezing facilities. Since that time we note a dynamic development of the production and export of frozen fruits and later, since 1963, also of frozen vegetables. At first the production of frozen fruits and vegetables was based on the existing state-owned cold storage plants.

In order to cover this shortage the building of special cold storage plants with freezing facilities has started. The task of these plants is to produce frozen fruits and vegetables solely within the horticultural co-operative sector.

The first special plant for the production of frozen fruits and vegetables and fruit concentrates was built in 1966 at Góra Kalwaria. The annual production of this plant today amounts to more than 10,000 tons of frozen fruit and vegetables. It is the largest plant in Poland producing frozen fruits and vegetables and one of the highest in Europe. It is fitted out with up-to-date equipment and machines purchased abroad.

During the years 1971 and 1972 four further plants were put into operation at Przysucha, Radzyń Podlaski, Lipsko and Leżajsk — organizationally all of them are within the HORTEX association of cold storage plants at Góra Kalwaria. The annual processing capacity of these plants today is estimated at some 20,000 tons of frozen articles.

In 1973 a new freezing plant will be put into operation at Płońsk in Poland's main raspberry-growing region. The annual production of frozen fruits and vegetables, ice creams and concentrates will be on the level of 14,000–17,000 tons. The equipment for this plant has been bought abroad.

On the basis of the cold storage plant with freezing facilities under construction and of the existing production potential, a further marked increase of production and export of frozen fruits and vegetables is foreseen.

The majority of the production of frozen articles is destined for export. In Poland freezing of fruits and vegetables in state-owned cold storage plants and in other enterprises is being developed simultaneously. The basic raw material for the production of frozen articles are strawberries. Poland has become a leading grower and exporter of these. As a world exporter we are only second to Mexico.

Next to frozen strawberries are frozen black currants, raspberries, morello cherries, red currants and in vegetables spinach, Brussels sprouts, beans, peas, carrots cut into cubes, mixed vegetables, cucumber salad, kale, asparagus, baby-beetroots and onions. Work is also being done on

the introduction of new assortments, on the organization of exports of potato chips, flour and potato delicatessen, cakes and ice-creams.

Polish frozen fruits and vegetables are renowned on the markets of Europe, the United States, Canada, Venezuela and Australia.

HORTEX share in the total exports of Polish frozen articles amounts to more than 60 per cent.

The analysis of foreign markets indicates that the demand for frozen fruits and vegetables will increase systematically. The career already made by frozen articles is sure to be furthered.

The biggest rise in the demand will be for frozen fruits for the processing industry despite the fact that their prices continue to be considerably higher than those of the until recently used semi-finished product which are fruit pulps preserved by SO<sub>2</sub>.

An increase in the production of frozen fruits destined for direct consumption is to be expected. No smaller an influence upon the level of this consumption will be born by the competition on the part of fresh fruits.

A systematic rise in consumption of frozen vegetables is also being noted.

Also an upward trend in the consumption of fresh fruits and vegetables and their preserves is continuing.

Due to favourable conditions and a large raw material, processing and freezing industry base, the co-operative horticultural sector in Poland plays an important part in the production and export of horticultural products and especially of the sought for berry fruits and vegetables in various forms.

HORTEX position — as the main supplier from Poland of horticultural products will remain strong also in the future.

The export production will be systematically developed according to the requirements of our clients.





**THE EXPORT OF FRUIT  
AND VEGETABLE PRESERVES  
TO THE FEDERAL REPUBLIC OF  
GERMANY AND GREAT BRITAIN**



Great Britain and the Federal Republic of Germany are leading importers of horticultural products from HORTEX. The very good quality of our articles is a guarantee for individual importers that their sale to local buyers in the fruit and vegetable branch will not present any difficulties.

It is therefore not by accident that all preserves, on the labels of which HORTEX figures as the exporter, have been introduced as a permanent factor to the largest commercial enterprises of the supermarket type and to department stores on the two above mentioned markets. Both Great Britain and the Federal Republic of Germany annually purchase almost our full assortment of fruit and vegetable preserves. In the export of preserves to the Federal Republic of Germany fruits in syrup, among which bilberries, raspberries and strawberries being particularly popular, hold the main position. They are exported in a full range of packing starting with jars of 0.2 l capacity to 0.9 l ones and 1 kilo tins. During the past four years our fruits in syrup in Euroglass jars universally used in the Federal Republic of Germany, have enjoyed a special popularity. The success of our fruits in syrup among customers in the Federal Republic of Germany is indicated by the fact that the demand for them often outgrows our possibilities of sale. Beside the KRAKUS brand products, very renowned for their high quality, on the request of a number of buyers we also deliver to the Federal Republic of Germany fruits in syrup under the clients' own labels. In 1972 HORTEX's sales of fruits in syrup to the Federal Republic of Germany attained the figure of more than 3,500 tons; this amounts throughout the past five years to an increase of about one hundred per cent.

Next to fruits in syrup vegetable preserves are an important HORTEX export item to the Federal Republic of Germany. Of these, pickled dill cucumbers in retail packings — jars of 0.9 and 0.5 l capacity — are particularly well introduced. Their sales

during the past season attained the record figure of 1,900 tons.

Apart from the traditional size of cucumbers (6–11 cm) HORTEX has recently introduced to the market of the Federal Republic of Germany specially sorted cucumbers of 3–6 cm size. The remaining assortments of vegetable preserves, the sales of which are growing from year to year, embrace pasteurized cucumbers in brine, sliced cucumbers, cucumber salad, red cabbage salad. Their deliveries, particularly increasing in recent years, have attained an annual figure of more than 2,000 tons.

Depending on the fruit and vegetable crop and resulting supply HORTEX has been recently selling to the German Federal Republic 5,000–7,000 tons of various preserves annually. We deliver to the Federal Republic of Germany the majority of our preserves under the Polish KRAKUS brand labels which have won among local buyers the opinion that their brand covers the excellent quality of a Polish product.

In the export of our preserves to Great Britain dominate vegetables in vinegar, which in quality successfully compete with other preserves of this type on the British market. Next to baby beetroots in vinegar, for many years supplied to the largest supermarkets in Great Britain, we have recently started large-scale deliveries of caramelised pickled onions, specially prepared to the taste of the British consumer.

During the present season we expect to deliver a total of about 3,000 tons of baby beetroots and onions in vinegar which would be a record figure for our exports of these items to the British market. Practically deliveries of these two assortments are only limited by quotas of annual import licences, as on the part of buyers the demand exceeds these limits. It is worth emphasizing here that we deliver these articles to supermarkets under our own HORTEX brand labels. Considering the fact that supermarkets use their own uniform brands for all food articles sold by them, this exception made for commodities supplied by

us is a clear proof that the HORTEX brand is highly valued by the British consumer.

Our export of pasteurized fruits (so-called "solid pack fruits") to Great Britain is increasing very considerably every year. These fruits, which are used universally in the baker's trade (as fillings for pies and in the processing industry for the production of yogurts, ice-creams, cocktails, etc.), have won a very good name among our clients. A particularly high demand is noted for pasteurized strawberries, raspberries, bilberries and black currants. This year we are enriching the assortment of pasteurized fruits by plums with an addition of sugar.

Another important item in the group of fruit preserves exported to Great Britain are fruits in syrup — especially bilberries which are very popular in the Midlands where because of their wholesome properties, bilberries and their preserves have been for years a permanent item in the menu of the local population and especially of miners. The British market, as one of the few in the world admitting dyeing of foodstuffs, is annually supplied by us with high-quality raspberries and strawberries in syrup prepared according to recipes and with the use of dye-stuffs accepted by British regulations concerning food.

Our pickled dill cucumbers have a very good name among British buyers. Until recently they were shipped only to so-called continental customers, but at present our cucumbers, due to their acidity having been raised and to their adaptation to the taste of British consumers are permanently introduced to supermarkets and large department stores of such firms as Sainsbury and Tesco, and acquire ever more buyers. This season HORTEX exports of cucumbers to Great Britain will attain 1,600 tons, namely about 50 per cent more than in the past year. The above-mentioned main assortments of preserves do not close the list of our traditional deliveries to Great Britain which include also pasteurized sauerkraut, preserved beans, cucumber salad and gherkins.

*Zbigniew Dziedziewicz*





# POLISH MALT

Poland has created a strong and reliable basis for the production of malt for export, by rebuilding growing brewer's barley in the past 10 years.

After many years of research and experimentation carried out in the main regions of cultivation, namely in the provinces of Poznań, Bydgoszcz, Opole and Wrocław, several well proved varieties of barley, such as: Breuns Wisa, Alsa, Damazy and Union have been introduced into cultivation. In addition to high productiveness they are characterized by low protein content, high extractivity, a good enzymatic capacity, and very good technological characteristics. Due to a strict regionalization of individual varieties and the sowing of larger areas with one variety, these barleys find their way to appropriate granaries and then to malt-houses, as barleys of pure varieties. This has a very beneficial effect on the run of technological processes and obviously on the quality of the malt.

The keeping of the variety features of barley for many years and the favourable structure of the grain is largely due to the moderately mild climate prevailing in these regions of Poland, the earmarking for barley cultivation of appropriately good soils and the rational fertilization with natural and chemical fertilizers.

Because of this in individual years brewer's barley in Poland does not show more marked deviations both as far as the chemical composition and the outward appearance (shape, colour) of the grain is concerned. The quality of barley delivered by state granaries is very even and is as follows:

- moisture — 14–15 per cent, only in years of unfavourable harvesting conditions it attains 15.5 per cent
- hectolitre weight — 70–73 kg
- germination power — 95–98 per cent
- germination capacity — 97–99 per cent
- screening — 90–95 per cent, a 2.8 mm screen keeps back most often 50–65 per cent of the grain; only in some years the amount is lower and is 40–50 per cent
- protein content — 10–11.7 per cent, average 11–11.5 per cent
- total impurities — 3 per cent

— husk percentage — 6.5–8 per cent, average 7 per cent

— shape of grain — uniform

— colour of husk — light-yellow with lustre, only when crops are poorer up to 4 per cent of grains with darkened ends are admitted

— mealiness — minimum 90 per cent.

Barley with such quality features is delivered to malt-houses where it is stored in floor or silo granaries according to regions of deliveries (varieties) and the declared quality.

Before processing the barley is thoroughly cleaned on a set of equipment consisting of a fanner and a trieur grading machine on which the grain is deprived of all impurities, thin barley and broken grains and as a result its screening is raised to a minimum of 97–98 per cent.

The thus prepared barley is subjected to malting. The malt industry in Poland has at its disposal malt-houses of various types, such as floor, drum and classic box maltings and high output mechanized box maltings. Irrespective of the type of malt-house all of them have (in their basic departments) complete technical equipment ensuring the carrying out of proper technological processes.

Mechanical malt-houses are fully or partly air-conditioned, on the other hand in floor malt-houses with no air-conditioning export production is limited to months in which favourable climatic conditions exist — i.e. from October to April.

In all types of malt-houses technical processes are carried out in a classic arrangement, which permits in the said types of malt-houses to produce malt in a wide range of parameters in agreement with each request of the client.

The general outline of technological processes in the individual departments is as follows:

Steeping is carried out in cold (12°C) water. About 2/3 of the steeping time the grain is not in water and 1/3 of the time it is submerged. During steeping the grain is strongly aerated possibly also by irrigating and suction of CO<sub>2</sub> both when under water and out of it.



# FOR EXPORT



The grain is steeped until it attains the required steeping degree (depending on the planned parameters of the malt), namely for 50–60 hours.

Germination lasts 6 to 7 days, depending on the variety of barley and quality parameters of the malt. During germination the assumed temperatures are strictly observed and attain in the final stage of malting max. 18°C. Only in the production of malts with an increased modification and colour the temperature is raised by 1–2°C.

Malt kilning is carried out on two- or three-floor kilns by the Topf system or on high-output single floor kilns.

Particularly multi-floor kilns which are in majority in our malt-houses, create big possibilities for the regulation of the colour of malt.

In the final stage of kilning, depending on the colour and character of the malt, a temperature of 82–85°C is kept.

The thus dried malt is subjected to degermination and next is directed to a hopper where it awaits a labor-

atory analysis. After the analysis the malt is sent to the main storage where it is stored in chambers segregated according to quality.

Before shipment for export the malt is thoroughly cleaned on a polishing machine and is next packed in jute sacks with a polyethylene or a four ply paper bag of which one layer is paraffin-lined.

After sackfilling the malt is again checked in the malt-house laboratory as to whether its quality parameters are in accordance with the terms of contracts. Only then it can be shipped.

All malt-houses have their own laboratories which are fitted with apparatus permitting the carrying out of complete malt analysis. Polish laboratories fully comply with the regulations of the European Brewing Convention.

We produce mainly malt of the Pilsen type, which presents the following quality parameters:

— moisture	— 3.8–4.2 per cent
— extract content in dry matter	— 80–81 per cent
— extract difference (acc. to Miag-Seck)	— 2.2–3.4 according to client's wishes
— saccharification time	— up to 15 minutes (max.)
— colour of wort (according to EBC scale)	— 2.5–4.0 according to customer's wish
— protein content	— max. 11.3 per cent
— Kolbach index	— 36–42
— diastatic power	— min. 250 to 280° (Windisch-Kolbach units)
— total impurities	— max. 1 per cent
— screening	— min. 95 per cent

In addition to the above given quality parameters we are able to guarantee further parameters indicating the good preparation of the malt such as: Hartong's index at 45°C (min. 36), soluble protein in percentage extract (about 5.5 per cent), wort viscosity (max. 1.6), or mealiness of malt (max. 5 per cent of glassy grains).

Due to the fact that the majority of malt-houses have at their disposal chamber stores or silos, we are able to make deliveries regularly throughout the year.



## Orchards and Berry Plantations

According to data provided by the Główny Urząd Statystyczny (Main Census Office) the total area of orchards in Poland in 1971 amounted to 296,400 hectares. As much as 92.1 per cent of this area were orchards of privately owned farms and the remaining 17,600 hectares were orchards owned by state farms.

As far as the numbers and varieties of fruit trees are concerned the list embraces 84.3 million fruit-trees of which 38.6 million are apple-trees, 19.1 million are plum-trees, 11.4 million are sour-cherry-trees, 9.1 million are pear-trees and 3.7 million are cherry-trees.

This data becomes particularly expressive when compared to the census carried out in 1965. The total figure for trees increased during this six year period by 8.9 million or by 11.7 per cent of which 7.4 million were apple-trees, 2.2 million plum-trees, and the remaining 0.9 million were walnut-trees, apricot-trees and peach-trees.

The census 1971 also noted strawberry plantations covering an area of 30,300 hectares of which 29,900 hectares or 98.9 per cent are privately owned. Again in comparison with 1965 one can see an increase in the area under strawberry cultivation of 3,900 hectares, 14.8 per cent. In 1971 the area under raspberry cultivation amounted to 5,800 hectares and was by 1,200 hectares or 26.9 per cent larger than in 1965. There were 37.4 million currant shrubs, namely 13.9 million shrubs more than in 1965, and 12.4 million gooseberry shrubs i.e. two million (19.4 per cent) more than in 1965.

These data illustrate the present situation and changes which have taken place in fruit-farming during the past six years.

## Third Generation Pesticides

The harmful results of using DDT and other similar pesticides have forced scientists to continuously search for new methods of fighting pests. Attention has been concentrated recently on the application of active biological compounds for the protection of crops. Insects cannot build-up resistance against this type of substance. Research carried out during recent years has shown that the juvenile hormones (endocrinous secretion controlling the growth of insects) — obtained by synthesis in laboratories and by separation from living organisms cause their death — when ministered to insects; they can be used, therefore, as pesticides. The synthetic production of these compounds on a large scale would be, however, too expensive. It has been found, on the other hand, that the same if not even a stronger action was shown by analogous substances, and also that such substances are much easier to obtain. In Poland this problem has been the subject of research by a team of chemists from the Institute of Organic Chemistry of the Polish Academy of Sciences (PAN) under the direction of Professor Dr. M. Kocura. A substance has been recently obtained which has an action of a thousand and ten thousand times stronger than the juvenile hormone. One gramme of this compound is sufficient to protect one hectare of crops against pests. Let us add that 3000 grammes of the traditional pesticides would be required per one hectare to provide the same effect.

Those latest insecticides, known as the third generation pesticides, do not have the shortcomings of the hitherto used media. Their most important advantage lies in the fact that they are harmless to men and animals, and feature a high selectivity in respect of a given species of insects. They do not pollute the environments as they are effective in small doses; they have a relatively short life and insects cannot become immunized against them.

Research concerning the application of juvenile hormones and their analogues is still being continued. Everything seems to point out that these compounds will be effective, and at the same time, they are harmless to human health.

It appears that biologists and chemists have found a solution to this difficult problem — a solution close to an ideal one.

## For the Fodder

The programme of providing food for the Polish population foresees a considerable reduction by 1985 of the consumption of grain products and potatoes, counterbalanced by a very big increase in the consumption of meat. Such far-reaching plans result from the fact that all aspects of developing animal farming have grown today to the rank of a first rate problem in which an important role will be played by the sciences. First in importance is the task of developing new methods of feeding farm animals, although quite a lot has been already done in this field. Protein concentrates have already been introduced for a number of years; the fodder industry has prepared recipes for concentrates designed for cattle, calves, pigs and poultry. Their admixture to fodder can contribute to better production results on the farm. The PROVIT concentrate, for instance, is already in general use by farmers. In addition to having a high concentration of proteins which is of high biological value it contains mineral salts and vitamins, i.e., the components whose deficiency is almost general in the fodder balance sheet of agricultural farms.

The problem of obtaining low-cost and fully valuable proteins for feeding purposes, for both human beings and animals has focused the attention of scientists in the whole world. Work is concentrated primarily on advanced methods of protein concentrates production from different materials. The new methods for obtaining protein concentrate from unicellular algae are also known in Poland. The process consists in the synthesis of proteins by the alga cells in environments which are rich in nitrogen. This method permits in obtaining a concentrate containing up to 88 per cent of proteins in the biomass.

Work on obtaining the protein concentrate from plants was carried out in the Institute of Zootechnics at Kraków under the leadership of professor Ryś. During the experiments it had been found that the protein concentrate made of plants and supplemented with synthetic amino acids has a high nutritious value for animals. At present preparations are being made so as to begin the production of such concentrates on an industrial scale.

## Wheat with the „Q” sign

Because agricultural production is being intensified in Poland important tasks have been set forth before this branch of economy. Primarily it is essential to assign arable land for the cultivation of good bearer corn varieties and to disseminate in agriculture varieties yielding high crops. Professor Dr. Andrzej Słaboński, the director of the Institute of Plant and Seed Cultivation of the Agricultural School of Higher Learning in Szczecin, has important scientific and practical achievements in the raising of many new valuable varieties of corn, and also, two varieties of wheat. The first of these is the SZELEJOWSKA winter variety of wheat. This is a very fertile variety, resistant to lodging, strewing and germination. It is more resistant to drought than all the other home-grown varieties. It is medium hardy and has high baking virtues.

The second variety, the GORZOWSKA SZTYWNA, is a spring wheat resistant to spring drought. It is a universal and most fertile Polish spring wheat.

New varieties of rye raised by Professor Słaboński are also well-known. The tetraploid rye named TETRA GORZÓW is characterized by a high protein content and has high baking and nutritive values. Its grain is of the finest and it is particularly appropriate for mechanical harvesting. However, the greatest successes — the result of scientific research followed by practical experiments on new varieties of brewing and the general use barley — was the raising of new varieties and families. The GORZOWSKI 362 (Millenium) variety surpasses the other home varieties in fertility, rigidity of straw and resistance to drought. It is a rather universal variety and reacts well to large doses of fertilizers. The GORZOWSKI 359 (As) is a fertile variety resistant to lodging and has good brewing value. It surpasses home and foreign varieties cultivated in Poland.

Professor Słaboński is an enthusiastic propagator of the development in Poland of barley cultivation on a considerably wider scale than hitherto. He is of the opinion that barley is most fertile and reliable as a planning crop for each year it yields a never-failing crop. That is so because its period of vegetation is the shortest, and, as a result, it is least exposed to the risks of unfavourable atmospheric conditions, diseases and pests.

Such new varieties and families of barley as GORZOWSKI 362, GORZOWSKI 359 and PIAST have been tested under natural agricultural conditions. They guarantee a yield of 60 to 70 q per hectare. The varieties raised and tested thus by professor A. Słaboński yield better crops than imported barley.

# SUNDRIES





**Forest and orchard fruits** and their products are the subject of POLCARGO supervisory activities.

These supervisory activities include all assortments according to the above-mentioned groups of articles viz.:

forest fruit

— bilberries, red whortleberries, cranberries, fruit of briar rose, sea-buckthorn, elder;

orchard fruit

— strawberries, raspberries, apples, pears, plums, currants, sour cherries, grapes, peaches;

semi-products

— pulps, purée, chemically preserved and pasteurized juices, concentrates, flavourings;

products

— jams, marmalades, jellies, juices, stewed fruit, frozen fruit, dried fruit.

POLCARGO's supervisory activities in the line of fresh fruit and its products consist in ascertaining or effecting of:

organoleptic characteristics  
physical and chemical characteristics

quantity

weight

sampling

cleanliness of transport means

supervision of loading and reloading operations

proper stowage.

POLCARGO's inspections within export, import and transit are carried out by highly skilled inspectors and comply with the foreign and home standards in force and also with the terms of the contracts involved.

Inspection of such physical and chemical properties as: total extract, total and volatile acidity, moisture content, sugar content, vitamin C content, preserving means, heavy metals, etc. are carried out in its own, up-to-date, laboratory.

Kindly note the address:

**POLCARGO**

International Superintendence  
and Testing Services

Head Office —

Żeromskiego 32, 81-369 Gdynia, Poland

Phone 21-39-21, Cables Polcargó Gdynia.

Telex 051247



## Gold medals for food products handled by POLCOOP

The Jury of the "11-eme Sélection Mondiale de la Conserverie" (XI World's Selection of Preserves), held from April 25 till July 31, 1972, awarded Gold Medals to the following food products from POLCOOP:

**fruit syrups:** — strawberry syrup  
— raspberry syrup  
— morello cherry syrup  
— black currant syrup

and

**canned pork shank "Golonka"**

These articles are exported under the POLCOOP trademark by POLCOOP, Foreign Trade Enterprise of the Central Agricultural Union of "Samopomoc Chlopska" Co-operatives.

POLCOOP — which last year celebrated its fifteenth anniversary — handles the export of agricultural products and foodstuffs of vegetable and animal origin. On the rich export list of POLCOOP's processed fruit and vegetables canned meat can be found as well. These products are made by co-operative production plants.

The SYRUPS presented at the World's Selection of Preserves are made by the Co-operative Foodstuff Plant FRUCTONA at Tarnów (district of Kraków). This is a specialized fruit and vegetable processing plant employing modern production methods, and only excellent raw materials free of chemicals are used. It is a well known fact that the use of chemicals in Poland is avoided as much as possible.

Like other fruit-and-vegetable products, the fruit syrups exported by POLCOOP are made without the additions of artificial preserving and dyeing agents. These fruits are highly-sweetened fruit juices concentrated with the addition of white sugar up

to 65 per cent. At the same time, sugar, at this concentration, is the only juice preserving agent. Syrups are made from fresh or pasteurized musts. They are limpid, free of sediments, and have a taste and smell characteristic for the given kind of fruit. **Packing** — shaped bottles of 0.375 or 0.5 litre content.

POLCOOP offers the following syrups:

**strawberry syrup**  
**raspberry syrup**  
**morello cherry syrup**  
**black currant syrup**

All these syrups have been awarded Gold Medals by the Jury of the XI World's Selection of Preserves at Geneva.

GOLONKA (Pork Shank) is a traditional Polish titbit made by the Meat and Poultry Product Plant at Bydgoszcz. The plant belongs to the Communal Co-operative "Samopomoc Chlopska" at Solec Kujawski.

This preserve is sold in tins of 425 g weight. It is based on an old well-tried Polish kitchen recipe.

The Pork Shank (GOLONKA) is made from selected pigs. Immediately after slaughter, the meat is subjected to pickling. The next process consists in the removal of the dispensable fat layer which lies directly under the skin. After removing the fat, the meat is carefully wrapped in well-preserved skin, thus assuring a typical taste. Prepared in this manner the product is canned and sterilized. It may be worthwhile to add that besides a small quantity of spices and a minimum batch of gelatine, indispensable for filling-up the tin, the GOLONKA contains no other additions. The consumers are, therefore, supplied with a really unrivalled GOLD PRODUCT.

**Exporter**

**POLCOOP**

Kopernika 30, 00-336 Warszawa, Poland


Telex: POLCOOP Wa 81-4451

Phone: 3-10-81, 26-23-63









# For an Excellent Meal

Delicate poultry, among them guinea-fowls, should not be tired by a long journey before slaughter. That is why poultry farms are close to the Poultry Processing Plant at Toruń. Hygiene also bears an influence on the value of guinea-fowls' meat. That is one of reasons why care is taken to ensure proper transport conditions. Container type cages are carefully disinfected, and, trucks, before each shipment, are also disinfected. For an outsider this may seem an exaggeration, but Mr. Roman Repa, a veterinary surgeon, is of the opinion that this is fully justified. After all, we are dealing here with an article destined for consumption. In Poland, every farm raising guinea-fowl for export, before it receives the right to be exported, is subjected to several inspections as to hygienic conditions. These inspections are carried out by commissions of the State Veterinary Service. Already at the threshold of the Pomorskie Za-

klady Drobiarskie (Pomeranian Poultry Processing Plant) the guinea-fowls, delivered in containers, receive a veterinary attestation stating that the shipment has been passed for processing into frozen carcasses. On one particular day at Toruń, the veterinary examination eliminated just under one per cent of the vast flock. This is proof that the poultry farm managers and forwarding agent made every effort to ship properly and comply with the hygiene regulations.

Now it is the turn of the employees at the plant. We met Doctor Roman Repa twice again: during slaughter and after. It is worth noting that the veterinary surgeon and his subordinate personnel are not members of the plant's crew but are only permanently assigned there by a state service called the Veterinary Sanitary Inspection Service. This guarantees an independence of decisions and — when necessary — a critical estimation. Engineer Bogdan Drozd, the manager of the plant's poultry production department, explains additionally that raised under natural conditions, in which the birds consume their fodder freely in fowl-runs, choosing the most valuable components, and not fattened in closed cages, is the another factor influencing the quality of the guinea-fowl carcasses. Gourmets know that the meat of guinea-fowls from Poland owes its remarkable value of taste and its beautiful golden colour on roasting primarily due to the fact that raising takes place under natural conditions. They may be roasted with or without stuffing, or they may be wrapped — the same as partridges — in pieces of lard and then seasoned with cream. Nothing is as tasty as a guinea-fowl broth from a naturally raised bird. To these opinions one may add that specialists in alimentary matters and experienced dieteticians call attention to the fact that, as far as nutritious



Value is concerned, guinea fowl meat contains as much of the most valuable proteins as jointly the meat of wing game and domestic fowl. That is so because it luckily combines digestible and high caloric chicken meat rich in proteins and valuable to the human organism and mineral compounds which are found in the meat of wing-game (e.g. of partridges or pheasants). Bones and excellent musculature is a feature of the carcasses. The weight of a carcass attains 1.2 kg so they are large and magnificent birds. Because of the carcass being full-meated (with thin bones) it makes a meal for an average size family.

How is it that this excellent material comes to be so delicious?

Almost the entire production process is carried out on an automatic line resembling a cable railway. At a calculated optimum speed of 2,500 carcasses per hour it is possible to attend

to the examination of each piece. After plucking all carcasses pass through an automatic washing plant. The visible thin layer of fat under the skin of the guinea-fowl is a guarantee of high quality. Now the carcasses pass on to another line as the next stage — one requiring even greater care — starting the evisceration. It is carried out by hand by women workers in snow-white aprons. Here again veterinary surgeons or their assistants supervise the process. After the rinsing of the inside and the amputation of the head, the carcass is carefully examined before being placed for 30 minutes in a bath filled with crushed ice. The next stage takes place in a refrigerating tunnel which consists of two chambers. In the first chamber carcasses are sprayed with cooled water for five minutes and in the second a blast (at a speed of 4 m/sec.) of cold (+4°C) air dries them. Now

the carcasses are grouped into classes according to weight — from 600 to 1,200 g. The most valuable giblets wrapped in parchment paper are placed inside the carcasses which are next placed in cryovac bags. The speed of operations and perfect hygiene are remarkable. The ready for export carcasses are packed into cardboard boxes containing 10–12 pieces. Before shipment the packed poultry is stored in a nearby cold storage plant. Cold storage preserves the appetizing colour of the meat. The taste of the meat remains also unchanged, and is, after freezing, as good as fresh. Thus, consignees receive an article of high quality which may be recommended with full confidence to the most fastidious customers. Firms in Switzerland, France, Italy, Holland, Belgium and in many other countries know this, and that imports of guinea-fowls are exceptionally good business.







## Polish Peat

Gardeners, champignon growers, farmers engaged in raising poultry and livestock, and, also lovers of household animals (primarily cats and dogs) in more than twenty countries — be it Australia, the United States or countries of Western Europe — know Polish high peat moss (sphagnum) as a most useful article. Polish peat moss may serve best as a component of gardening soil or a component element of various peat moss and fertilizer mixtures. It is often specially recommended as a basement soil for greenhouse cultivations or field cultures primarily of vegetables and flowers (it speeds up their vegetation by about a fortnight). Sphagnum peat moss is also a very good material for storage and transporting of potatoes, vegetable flower bulbs and fruit. Growers of champignons value particularly high Polish peat moss as the best basement soil in the cultivation of champignons.

The expansion in many countries of champignon-growing cellars may well

become a new stimulus for increasing imports of peat moss from Poland.

Also, breeders emphasize the virtues of Polish peat moss as litter for domestic animals and fowl. It absorbs humidity and objectionable odours, and its natural properties help in maintaining the health of domestic fauna. The diversified utility of peat moss from Poland is the result, among other things, of its exceptionally advantageous physical properties and of the manner this material is prepared by the producers. In doing this they not only take into consideration the use for which the peat moss is destined but also the defined specifics of the cultures (e.g., flowers or vegetables).

Poland ranks among countries with comparatively large areas of peat moss deposits. At present this raw material is obtained from three vast regions in the north of Poland from territories of an area of more than 1,000 hectares. This, however, is but a part of the existing possibilities as peatbogs cover almost five per cent of the country's

area, and, Poland has great reserves of this raw material. Already today peatbogs and peat moss resources are put to advantage by the up-to-date, recently modernized, peat industry, which in recent years has been allotted considerable investment funds. The spongy structure and the sour pH 3.5–4.5, remarkable for its high water and air retention capacity, are the main characteristic of sphagnum peat moss. The water retention capacity oscillates between 1,400 and 2,500 per cent in relation to the dry mass. Thus, in storing water high peat may increase its volume even twenty-five-fold. The thermal conditions created by sphagnum peats are also very favourable. Mineral components in these peats are almost exclusively an element of peat creating plants which very slowly undergo decomposition. In Poland all these advantageous features are preserved in the production of peat moss. Also, in the interest of consignees, the producers have ensured proper packings: standard of about 45 kg (0.17 cu.m) for the re-





# Moss

Janusz Trzcianka

requirements of the wholesale trade and 4 kg retail packings for domestic use (e.g., for small balcony gardens or bedding). For packing practical polyethylene is used. On the packings instructions are written in the world's main languages. Included, among other things, are the most practical ways of using the peat. Polyethylene packing has proved its utility in that it is impervious to humidity and retains the peat's natural sterility. It is worth adding that the method of peat moss processing in Poland ensures this sterility. In the proper granulation process the peat is perfectly cleaned.

Peat moss is shipped to clients abroad within ten days from the receipt of the order. It is a fact known to customers that the two sale seasons, September-October and February-May, bring a systematic intensification of deliveries which, by the way, are growing from year to year. Thus, it is to be expected that both regular and new buyers of Polish sphagnum peat highly assess the utility and quality of peat shipments.

In 1971, POLCOOP exported more than one million tons ballots of garden peat, and 1972 brought a further rise in exports by about 20 per cent. A similar or an even more marked-upward trend in deliveries of peat moss from Poland is promised by contracts signed for 1973.

POLCOOP sees possibilities for increasing its deliveries by further strengthening contacts with clients. This cooperation is shaping very favourably. At the same time it has a stimulating influence upon the development of international co-operative links and is to the satisfaction of the buyers of Polish peat moss. Among the main importers and contracting parties of POLCOOP are consignees in Austria. Owners of large production greenhouses, holders of allotments and town administrations stock up on Polish peat moss, which proves exceptionally well under Austrian soil conditions. Today exports of Polish peat moss to Austria top 150,000 tons and are annually increasing by some 30 per cent. This is proof

of both the high assessment of the article, as well as of further prospects for POLCOOP to obtain new, more intensive contracts.

Of consignees in the United States the renowned firm Premier Peat Moss Corporation of New York has imported some 100,000 ballots of Polish peat. The firm speaks in superlatives of Polish peat moss. Also the Italian firms Agrochemica (Bolzano) and ZORZI (Padova), and, the Swiss enterprise Fourage of Basel (using peat moss as litter for poultry) are of the opinion that the quality of peat moss from Poland is the highest. Similar opinions about this article have been expressed by consignees in Australia and Japan. The exports by POLCOOP to this far-away continent have brought good commercial effects evident for both parties. In Australia Polish peat moss is obtaining deserved high assessments and, as a matter of fact, so far, the only check in the rise of sales of this article to Australia has been the lack of perfect regularity in sea transport.

Recently POLCOOP's deliveries to the French market have been increasing particularly rapidly. Two firms of importers — Société Commerciale Lambert-Rivière, 16 Rue de Miro-mesnil, Paris 8 and Etablissements Ghis, 22 Rue Pasteur, Cagnes-sur-Mer — have become specialized in turnovers with Polish peat moss destined for garden cultivations under conditions of rocky soils off the coastal regions of the Mediterranean Sea, particularly on the Côté d'Azur.

**Thus the most valuable high peat moss-sphagnum—is winning world markets, and, fully satisfied the high requirements of customers in various countries and continents.**



**A**t Rzepin, a railway junction located on an important route linking Eastern and Western Europe, is one of POLCOOP's export bases. Here, in spacious and up-to-date warehouses, products earmarked for clients abroad are stored.

Among them are helvellae which are found in great abundance in the eastern and northern forest regions of Poland and in the vicinity of Rzepin.

Brown helvella (*Helvella esculenta* Pers), as a typical early spring mushroom, depending on favourable atmospheric conditions (temperature above 0°C and much insolation) appear in Polish forests in late March. The pickers deliver them to cooperative purchase points through April and even — when there is a second growth of a short duration — in May and June. Purchase points accept only healthy and young mushrooms whose stems have been already cut to a length of about 2 cm. Thus, the nearby Export Base at Rzepin receives helvellae of the best quality, carefully cleaned and with properly cut stems.

The further preparation of helvellae for export is carried out by workers at the base in Rzepin. The main problem is the proper drying of mushrooms. POLCOOP's present export assortment of dried mushrooms is represented — next to such known varieties as Chanterelles and Boletus — also by helvellae. It should be added that during the drying process carried out according to Polish standards, which are strictly conformed to at Rzepin, helvellae are deprived of all compounds harmful to Human health — primarily helvellic acid ( $C_{12}H_{20}O_7$ ) — which helvellae contain when fresh. Dried helvellae, with no traces of helvellic acid, can be — and are — used by customers abroad as an excellent seasoning for sauces, giving a piquant flavour and additional nutritive values. They are very suitable for extracts of food articles as an exceptionally tasty and aromatic ingredient.

To totally oxidize the toxic components during the drying process, various measures are taken. During the first stage helvellae are spread on acid-resisting wire strainers on clean cloth or special undulated paper and are dried in the sun for a few days. After this partial drying the mushrooms can be already sent to a modern radiator drying plant with a drying capacity of 2.4 tons per 24 hours. In the drying plant,

# **A Spicy and Nutri- tious Seasoning**





at a temperature of not more than 55°C, noxious compounds are completely eliminated, and the mushrooms do not lose their beautiful aroma. It is also here that the helvellae attain the degree of humidity set by export contracts, namely of not higher than 2 per cent.

The exceptionally careful drying process of the helvellae assures the consumer an article of high quality.

The Base at Rzepin is well known among POLCOOP's contracting parties for its reliability. It is here that years ago Polish exports of helvellae were started and it is here that the crew of the Export Base has gained experience which is so necessary when handling so delicate an article. A representative from one of West German firms importing Polish dried helvellae, when visiting POLCOOP's management in Warszawa, also stopped at the Base at Rzepin where he declared his delight with the article, stating that the one thing he would like is that deliveries be increased to a maximum.

The manager of the Base, Mr. Eugenius Kotylak, promises that at the Base these mushrooms will be graded according to size and appearance. Sorting is done by hand, human hands in this case prove to be replaceable. The mushrooms sorted and properly packed in cartons (paper bags with an impregnated cellophane or polyethylene bags), are delivered to customers under uniform packaging. The cartons are of 25, 10 and 5 kg capacity.

Hitherto the main importing markets are France, Switzerland and the Federal Republic of Germany. POLCOOP IS ALSO PREPARED TO SERVE other potential buyers.

The carrying out of this promise will not be difficult for the highly skilled personnel at Rzepin, provided that the crop of helvellae is good. Depending on the climatic conditions of individual seasons the crop varies and thus the possibilities of delivery also vary.

**the 1973 crop will prove to be a rich one—and this is expected—then it will be possible to start production of canned sterilized helvellae on a wider scale. Pilot lots of this product are already being delivered by POLCOOP to buyers abroad and have won success. Obviously, however, dried helvellae will continue to be an important export commodity.**



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## The Activities of the Central Water Melioration Study and Design on the Background of the Present Water Economy Problems in Agriculture

The problems of water economy in agriculture belong to the more important issues ranking the present world. The increasing shortage of water resulting from the growing demand for this basic raw material, on the one hand, and the ever-growing degree of its pollution, on the other, create the necessity of a highly rational water management. This problem is beginning to be particularly felt in agriculture, in which water is one of the basic determinants of results attained. It should also be emphasized that the demands set before agriculture are increasing with every year and that the shortage of food on a world scale is growing. This problem exceptionally vital for humanity is handled by the United Nations through its FAO Agency, within which problems of water economy hold a prominent place.

Also in Poland the close connection between water economy and agriculture has been understood and almost all water problems have been taken over by the Ministry of Agriculture. In this situation agriculture's water economy itself also has attained the appropriate rank. Here it should be emphasized that for many years now in Poland land improvement of some 150,000 hectares of arable land is carried out annually and the entire country is covered by detailed water economy programmes for individual water economy regions. In the nearest future the government will start working on the already elaborated programme for the further development of water economy with the year 2000 in view.

Within the Ministry of Agriculture problems concerning the regulation of water relations for the requirements of agriculture are technically solved by the BIPROMEL Central Water Melioration Study and Design Office.

BIPROMEL carries out and develops:

- soil and water research, expert appraisements and research and design work
- perspective and programme plans in the line of water economy
- elaborates design and cost estimation documents, engineering reports and supervises building operations in the line of water economy in agriculture, flood protection, the finding of water reserves, irrigation and drainage of agricultural land.

The Office, which was set up in 1950, is a multi-branch enterprise, with headquarters in Warszawa and branch offices in all capitals of provinces. The Office is registered as an advisory office of UNO and FAO.

BIPROMEL at present employs some 2,000 qualified engineers and technicians, experts in water improvement and hydro-engineering hydrologists, agronomists, geodetists, mechanics, electricians, economists and other specialists.

The main directions of BIPROMEL's activities are:

- elaboration of general projects of technical and economic and water control solutions in agriculture (water balance, distribution of water, development of water resources) for defined regions and river-basins, with taking into consideration the requirements of the other branches of national economy,
- the basic equipment of water-and-land-improvement, river training and building of canals for agriculture's requirements, embankments, pumping stations, dams, weirs, protection against floods and other structures for water distribution,
- irrigation and drainage of arable lands including farm designs,
- agricultural utilization of municipal and industrial sewages,
- sprinkling arrangements,
- fish ponds,
- town and special land improvements (drainage of airfields, sports stadiums, etc.),
- anti-erosion operations.

For the above mentioned tasks BIPROMEL elaborates full design documentation including geodetic calculations and indispensable land research and exploration.

In the elaboration of big complex projects BIPROMEL forms teams of own highly skilled specialists and co-operates, when necessary, with appropriate scientific and research institutes, universities or with leading experts in the given branch from all over Poland.

The figures presented below illustrate BIPROMEL's activities: the technical documentation for land improvement of 6 million hectares of arable land has been elaborated.

During the past five years projects were elaborated and carried out for the:

- land improvement of 1,000,000 ha of arable land (irrigation and drainage)
- the training of 4,000 km of rivers
- 215 pumping stations were built
- 48 water reservoirs were built.

In recent years next to the building of large multitude water reservoirs much importance in the Office's activities is attached to storage of water in natural reservoirs (lakes, ponds) and new

small artificial reservoirs at catchment areas of lowland rivers which are destined primarily for the retention of water for the requirements of irrigation.

Of the more important elaborations carried out by BIPROMEL the following deserve emphasis:

1. The perspective plan for water economy in Poland for the requirements of agriculture throughout the country (water requirements, natural water resources, water reservoirs, transfer canals).
2. Irrigation and drainage of 70,000 ha of arable land with water brought by the 140 km Wieprz-Krzna transfer canal of 30 cu m/sec. capacity.  
The said land-improvement system has been completed and is giving good production results in exploitation.
3. Modernization project of the drainage of depression areas at the mouth of the Vistula (an area of 150,000 ha) together with the rebuilding of pumping stations (project under elaboration).
4. Land-improvement project of valleys on an area of 300,000 ha together with the regulation of the river Narew and its tributaries of a catchment-area of about 1,000 sq. km, including the building of water reservoirs of some 5,000,000 cu m capacity.
5. Comprehensive project for the utilization of the sewage of Łódź (750,000 inhabitants) for the irrigation of 30,000 ha of arable land.
6. Project of a water reservoir of some 150 million cu m capacity on the river Proсна.
7. Embankment projects of the rivers Vistula, Odra and Warta.
8. Perspective plan for the development of water economy within the catchment area of the river Vistula.

Moreover, since a number of years, on an average several tens of BIPROMEL's specialists are being employed in design-and-research, executive and exploitational work in various countries.

Engineers from BIPROMEL participated — among other things — in the elaboration of the general irrigation project of an area of some 300,000 ha in Iraq. At present BIPROMEL's specialists are working in Tanzania, Morocco, Libya and Nigeria.

In rendering technical services (consulting) in the line of water economy and land-improvement as well as in the delegating of experts abroad, the Office closely co-operates with POLSERVICE Foreign Trade Enterprise.